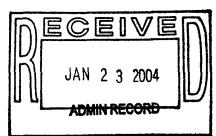
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Approval letter contained in the Administrative Record

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Appendix A – Correspondence Appendix B – Project Photographs

**ENCLOSURES** 

Analytical and QC Data

#### **ACRONYMS**

AL action level
AOC Area of Concern

ASD Analytical Services Division
AST aboveground storage tank
bgs below ground surface
BMP best management practice

CAD/ROD Corrective Action Decision/Record of Decision

CCA Configuration Control Authority

CDPHE Colorado Department of Public Health and Environment CERCLA Comprehensive Environmental Response, Compensation, and

Liability Act

CHWA Colorado Hazardous Waste Act

CMS/FS Corrective Measures Study/Feasibility Study

COC contaminant of concern

CRA Comprehensive Risk Assessment

cu ft cubic feet

D&D Decontamination and Decommissioning

DL detection limit

DOE US Department of Energy

DOP Decommissioning Operations Plan

DQA Data Quality Assessment DQO data quality objective

EPA US Environmental Protection Agency

ER Environmental Restoration

ER RSOP Environmental Restoration RFCA Standard Operating Protocol for

Routine Soil Remediation

ft feet

FY Fiscal Year

HPGe high-purity germanium
HRR Historical Release Report

IA Industrial Area

IASAP Industrial Area Sampling and Analysis Plan

IHSS Individual Hazardous Substance Site

K-H Kaiser-Hill Company, LLC

KOH Potassium hydroxide

lb pound

LCS laboratory control sample
ug/kg micrograms per kilogram
ug/L micrograms per liter
mg/kg milligrams per kilogram
mg/L milligrams per liter

MS matrix spike

MSD matrix spike duplicate nC1/g nanocuries per gram

#### **ACRONYMS**

NFAA No Further Accelerated Action
NLR No Longer Representative
OPWL Original Process Waste Lines

OU Operable Unit

PAC Potential Area of Concern

PARCCS precision, accuracy, representativeness, completeness,

comparability and sensitivity

PCB polychlorinated biphenyl pC1/g picocuries per gram picocuries per liter

PCOC potential contaminant of concern

POC Point of Compliance
POE Point of Evaluation
OC quality control

RADMS Remedial Action Decision Management System

RAO remedial action objective

RCRA Resource Conservation and Recovery Act

RFCA Rocky Flats Cleanup Agreement

RFETS Rocky Flats Environmental Technology Site

RFI/RI RCRA Facility Investigation/Remedial Investigation

RIN report identification number

RL reporting limit

RPD relative percent difference

RSOP RFCA Standard Operating Protocol

SAP Sampling and Analysis Plan
SBD sample beginning depth

SED sample end depth

Site Rocky Flats Environmental Technology Site

SOR sum of ratios

SSRS Subsurface Soil Risk Screen SVOC semivolatile organic compound

SWD Soil Water Database

UBC Under Building Contamination

UCL upper confidence limit
V&V verification and validation
VOC volatile organic compound
WRW wildlife refuge worker
XRF x-ray fluorescence

### 1.0 INTRODUCTION

This Environmental Restoration (ER) Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol for Routine Soil Remediation (ER RSOP) (DOE 2003a) Notification and Closeout Report for Individual Hazardous Substance Site (IHSS) Group 700-4 at the Rocky Flats Environmental Technology Site (RFETS or Site) in Golden, Colorado includes the following

- A summary of characterization data collection activities conducted at IHSS Group 700-4,
- Notification to remediate soil beneath one tank in IHSS Group 700-4, and
- A description of accelerated action activities at IHSS Group 700-4

IHSS Group 700-4 consists of twenty-three IHSSs, Under Building Contamination (UBC) sites, and Potential Areas of Concern (PACs), as listed in Table 1

The location of IHSS Group 700-4 is shown on Figure 1, and the UBCs, IHSSs, and PACs are shown on Figure 2

### 1.1 Project History and Report Organization

IHSS Group 700-4 accelerated action project was conducted in collaboration with Decontamination and Decommissioning (D&D) staff Characterization data were collected to determine if remediation was necessary at IHSS Group 700-4 and was scheduled so that the data for UBCs 771 and 774 was available to D&D staff for their decision-making process

Characterization data were collected in accordance with the Industrial Area Sampling and Analysis Plan (IASAP) Addendum #IA-03-01 (DOE 2002) Characterization sampling locations and deviations from the planned sampling locations as described in IASAP Addendum #IA-03-01 (DOE 2002) are presented in Table 2. These data are summarized in tables and maps in Section 2 on Tables 3 through 5 and Figures 3 through 7. These data were evaluated to determine if a soil removal action was warranted. The need for a soil removal action is discussed in Section 2.1.1 and as part of the Subsurface Soil Risk Screen (SSRS) in Section 6.

Characterization data was discussed with the regulatory agencies through the consultative process Colorado Department of Public Health and Environment (CDPHE) concurred that based on the presented characterization data a soil removal action was not warranted (Appendix A)

The original D&D plan did not include removal of Tanks 14 (Tank 68) and 16 (Tanks 66 and 67) (referred to as Tanks 14 and Tank 16) However, the decision was re-evaluated and tank removal initiated in October, 2003 in accordance with the Building 771 Decommissioning Operations Plan (DOP) (DOE, 2003b) Soil characterization samples were collected after the tanks were removed. These data are summarized in Section 20, Table 6, and Figure 9 Because a soil removal decision was made based on these data, an ER RSOP Notification was required. However, in order to expedite the soil removal.

action, CDPHE agreed that the notification could be included with the Closeout Report and it is included as Section 3

The soil removal action was completed in November 2003 when confirmation sampling data indicated that RFCA requirements were met. These data and information are summarized in Section 4, Tables 8 and 9, and on Figure 10

Additionally, other information required by the ER RSOP including disposition of waste (Section 4 1), information on residual contamination (Section 5 0), the Subsurface Soil Risk Screen (SSRS) (Section 6 0), and Stewardship Evaluation (Section 7 0), are also included in this report

Approval of this Closeout Report constitutes regulatory agency approval of the ER RSOP Notification and concurrence of this IHSS Group as a No Further Accelerated Action (NFAA) This information and NFAA determination will be documented in the FY04 Historical Release Report (HRR)

### 2.0 IHSS GROUP 700-4 ACTIVITIES

IHSS Group 700-4 activities are based on historical knowledge, previously collected analytical data (DOE 1992-2002), and recently collected data that was planned and executed in accordance with the IASAP (DOE 2001a) and IASAP Addendum #IA-03-01 (DOE 2002)

#### 2.1 Site Characterization

Characterization sampling locations and deviations from the planned sampling locations as described in IASAP Addendum #IA-03-01 (DOE 2002) are presented in Table 2. The location of these characterization samples and analytical results greater than background means plus two standard deviations or detection limits (DLs) are shown on Figures 3 through 7. Because of the overlap between IHSS, drains, OPWL, and other features some sampling locations may be plotted on maps with other IHSSs.

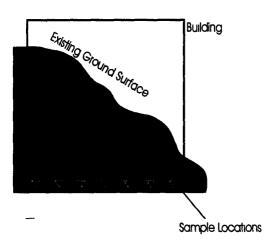
Analytical results greater than background means plus two standard deviations or DLs are presented in Table 3 Characterization results greater than RFCA Action Levels (ALs) are shown in bold in Table 3 and calculated values, based on high-purity germanium (HPGE) data, are italicized Gamma spectroscopy results were replaced with alpha spectroscopy in Table 3 and on the figures, where available EPA Method 6200 results were replaced with EPA Method 6010 results All gamma spectroscopy and EPA Method 6200 results are retained in the data set on the enclosed data disk

In some instances, the data presented on maps is rounded differently than the data presented in tables. However all comparisons to background, DLs, and ALs are accurate and based on the same dataset.

RFCA Wildlife Refuge Worker (WRW) and Ecological Receptor AL exceedances are listed in Table 4 and radionuclide sums of ratios (SORs) are listed in Table 5 Tank characterization and confirmation data are discussed in Section 40 All project real and quality control data, as of December 17, 2003 are included on the enclosed compact disc

Because consistent database designations are required, the sample depth for UBC samples is designated from beneath the building floor on figures and in tables Actual

depth is noted in the text when the depth affects project decisions. Sample depths at locations outside of building footprints are actual from ground surface. Many samples were collected from beneath Buildings 771 and 774. Both buildings are built into a hillside as conceptually illustrated below.



### 2.1.1 Characterization Analytical Results

Characterization samples were collected three separate times at IHSS Group 700-4

- 1) During a preliminary UBC characterization at UBC 771 (DOE 2001b),
- 2) In accordance with the IASAP Addendum #IA-03-01 (DOE 2002), and
- 3) After Tanks 14 and 16 were removed

The results of these characterization activities are briefly described below

### Preliminary UBC Characterization Sampling

Analytical results from 16 sampling locations during preliminary characterization (DOE 2001b) of UBC 771 indicate that plutonium-239/240 was present at activities greater than WRW ALs at one location, Location 12 There were no other WRW or AL exceedances These data are presented on Figure 8

### IASAP Addendum #IA-03-01 Sampling

Analytical results from samples collected in accordance with IASAP Addendum #IA-03-01 (DOE 2002) are presented in Table 3 and summarized in Table 4. As indicated in Table 4, several analytes are present in soil at concentrations greater than RFCA soil WRW or Ecological Receptor ALs (DOE et al. 2003)

Radionuclide exceedances are present beneath Building 771 and 774 at depths beneath building basements Radionuclide exceedances (americium-241 at 116 4 and 1,220 pCi/g and plutonium-239/240 at 1,690 and 943 75 pCi/g) are beneath the Building 774 basement slab. It is anticipated that after D&D activities are complete, the building shell will be backfilled and these sampling locations will be at least 6 feet below ground surface (bgs). One radionuclide exceedance of 56 6 pCi/g was detected beneath the

Building 771 basement slab After D&D activities are complete, the building shell will be backfilled and this sampling location will also be at least 6 feet bgs

In accordance with RFCA Attachment 5, the SSRS is used to determine if an accelerated action is required for radionuclide exceedances at a depth of 3 feet or greater. The SSRS is discussed in Section 2.2

While the SSRS was conducted to determine whether an accelerated action is required at UBC 774, it is believed that these radionuclide exceedances are the result of contamination carried into the soil sample from the concrete floor for the following reasons

- Analysis by D&D staff indicated 18 5 nCi/g alpha activity in the concrete in the area where elevated radionuclides were detected in the soil,
- Reanalysis of RFCA AL exceedances could not be duplicated, and
- Analytical results from adjacent sampling locations do not indicate RFCA AL exceedances

It is interesting to note that at sampling locations beneath Building 774, the americium-241 to plutonium-239/240 ratio ranges from 0.05 to 1.4. This is in contrast to the Site ratio of 8.08. However, the Site ratio of 8.08 was used to estimate plutonium-239/240 from HPGe detected americium-241 for this project.

Several semivolatile organic compounds (SVOCs) were detected in surface soil in IHSS Group 700-4, IHSS 150 2(N) Dibenz(a,h,)anthracene was detected at a concentration greater than the RFCA WRW AL at 5,500 ug/kg at Location CE47-012 Because this is an isolated exceedance, the 95 percent upper confidence limit (UCL) was calculated over the area of concern (AOC) In accordance with the IASAP (DOE 2001a), an action is required when the 95 percent UCL of the mean of the contaminant of concern across the AOC divided by the AL is greater than one The 95 percent UCL of the mean for dibenzo (a,h) anthracene is 1,610 9 across the AOC, and the AL is 3,490 The resulting ratio is 0 462, and action for dibenz (a,h,)anthracene is not indicated

Benzo(a)pyrene was detected in IHSS Group 700-4, at a concentration greater than the RFCA WRW AL at Locations CE47-012 (23,000 ug/kg) and CE48-012 (16,000 ug/kg) in IHSS 150 2(N) Because the benzo(a)pyrene occurrences are isolated exceedances, the 95 percent UCL was calculated over the AOC An action is required when the 95 percent UCL of the mean of the contaminant of concern across the AOC divided by the AL is greater than one The 95 percent UCL of the mean for benzo(a)pyrene is 2,997 8 across the AOC, and the AL is 3,490 ug/kg The resulting ratio is 0 859, and action for benzo(a)pyrene is not indicated

Several other SVOCs (benzo(b)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and pyrene) were detected at concentrations less than RFCA WRW ALs at these and other locations. There were no processes at Rocky Flats that used or produced dibenz(a,h,)anthracene, benzo(a)pyrene, or these compounds and they are commonly associated with asphalt. While not currently underneath asphalt, isolated areas of asphalt are found in the vicinity of these sampling locations.

Arsenic slightly exceeds the WRW AL in several surface soil locations and at one subsurface soil location. This is likely due to natural variation in Front Range arsenic background concentrations (Appendix A). Arsenic was detected in IHSS Group 700-4, at a concentration greater than the RFCA WRW AL at three surface soil locations. An action is required when the 95 percent UCL of the mean of the contaminant of concern across the AOC divided by the AL is greater than one. The 95 percent UCL of the mean for arsenic is 14.3 across the AOC, and the AL is 22.2 mg/kg. The resulting ratio is 0.642 and action for arsenic is not indicated. The arsenic exceedance in subsurface soil will be addressed through the SSRS (Section 2.2)

Lead exceeds the Ecological Receptor AL in several surface and subsurface soil locations. Lead exceedances will be evaluated through the Accelerated Action Ecological Risk Screening process to determine if soil removal actions are necessary.

Liquid samples were collected when water was encountered in a borehole at Location CF48-009 (inside Building 771) Analytical results indicate that all contaminant concentrations in the borehole samples were less than RFCA Tier II groundwater ALs, with two exceptions The manganese concentration at Location CF48-009 was 3 mg/L and the Tier II groundwater AL is 1 72 mg/L The bis(2-ethylhexyl)phthalate concentration at Location CF48-009 was 230 ug/L, and the Tier II groundwater AL is 6 ug/L Neither manganese or bis(2-ethylhexyl)phthalate were detected at concentrations greater than background means plus two standard deviations or DLs at surrounding soil sampling locations These groundwater data are further discussed in the Stewardship Evaluation (Section 7 0)

### Characterization Results Sums of Ratios

RFCA radionuclide SORs were calculated for IHSS Group 700-4 sampling locations. In accordance with RFCA, SOR calculations were based on analytical data for the radionuclides of concern (americium-241, plutonium-239/240, uranium-234, uranium-235, and uranium-238) with concentrations greater than background means plus two standard deviations. Table 5 presents the SORs for surface and subsurface soil. All SORs are less than one except for Sampling Locations CE47-003, CG48-008 and CG48-009 where WRW AL exceedances are already noted and discussed.

SORs, based on DOE-added contaminants, were calculated for non-radionuclide analytes in surface soil and action was not indicated

### Tanks 14 and 16 Characterization Results

Characterization samples (Sampling Locations CH48-017, CH48-019 and CH47-018) were collected adjacent to Tanks 14 and 16 southeast of Building 774 Results at these locations (Table 3 and Figure 5) indicated that metals and radionuclides were present at concentrations less than WRW and Ecological Receptor ALs and action was not warranted

Subsequent to the characterization sampling, D&D staff removed Tanks 14 and 16, which were foamed in 1996 (DOE 1996) After the tanks were removed, additional characterization samples were collected in accordance with the IASAP (DOE 2001a) and the IASAP Addendum #IA-03-01 (DOE 2002), and the results of sampling analyses are listed in Table 6 Results greater than RCFA WRW ALs are bolded and those calculated

from HPGe data are italicized. Tank characterization sampling results indicated that americium-241 activities ranged from 168 9 pCi/g to 6 115 nCi/g and plutonium-239/240 ranged from 1,367 pCi/g to 49 4 nCi/g at Tank 16. These data indicated that action was required because of the elevated americium-241 and plutonium-239/240 activities at relatively shallow depths. Soil sampling results at Tank 14 were less than background means plus two standard deviations or DLs. The sampling results indicated that no soil removal was required at Tank 14. Tank characterization sampling locations and results are also shown on Figure 9.

### 2.2 Subsurface Soil Risk Screen Based on Characterization Data

The SSRS follows the steps identified in Figure 3 in Attachment 5 of the RFCA Modification (DOE et al. 2003)

## Screen 1 – Are the contaminant of concern (COC) concentrations below RFCA Table 3 WRW Soil Action Levels?

No As shown in Tables 3 and 6, Figures 3 through 7, and Figure 9, americium-241, arsenic, and plutonium-239/240 exceed soil WRW ALs in subsurface soil

At two locations beneath the Building 774 basement, americium-241 and plutonium-239/240 exceed WRW ALs Elevated plutonium-239/240 activities range from 943 to 1,690 pCi/g at UBC774 (Figure 4) Elevated plutonium-239/240 activities range from 56 pCi/g to 157 pCi/g beneath the Building 771 basement (Figures 3 and 8)

Americium-241 activities ranged from 168 9 pCi/g to 6 115 nCi/g and plutonium-239/240 ranged from 1,367 pCi/g to 49 4 nCi/g at Tank 16

Arsenic exceeds the WRW AL at one location southeast of Building 774 (Figure 4) This exceedance is at a depth of 4 5 to 6 5 feet bgs

# Screen 2 – Is there a potential for subsurface soil to become surface soil (landslide and erosion areas identified on RFCA Attachment 5 - Figure 1)?

As shown in Figure 1, RFCA Attachment 5, sampling locations beneath the Building 774 basement and southeast of Building 774 are outside the area considered prone to landslides and high erosion. Sampling locations beneath the Building 771 basement are in an area that has been mapped as prone to landslides, but Building 771 basements are very deep and it is anticipated that after D&D activities are complete and the area is backfilled these sample locations will be at least 6 feet bgs. Additionally, regrading and compacting of the D&D fill will further reduce the likelihood of erosion.

# Screen 3 – Does subsurface soil radiological contamination exceed criteria in Section 5.3 and Attachment 14?

No Plutonium-239/240 and americium-241 activities are only greater than 3nCi/g below 6 feet in depth. Areas with radionuclide activity greater than 50 pCi/g are, or will be, at depths of at least 3 feet bgs. Areas with radionuclide activity greater than 3 nCi/g are, or will be, at depths of at least 3 feet bgs.

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the surface water standard?

Migration via erosion and groundwater are the two possible pathways whereby surface water could become contaminated by IHSS Group 700-4 soil or structures. Migration via erosion is unlikely because elevated plutonium-239/240 and americium-241 will be at least 6 feet bgs after D&D activities are complete. At the depth and location within the remaining building structure these exceedances are not likely to be affected by landslides or erosion. However, the tanks were in a location where erosion could occur. At the two locations beneath the Building 771 basement, where erosion is likely, the exceedances will be at least 6 feet bgs after D&D backfilling, reducing the likelihood of erosion.

Surface water monitoring results do not indicate activities of plutonium-239/240 or americium-241 greater than RFCA surface water ALs in surface water. The closest Point of Compliance (POC) is GS11 and it is located approximately 6,000 feet to the east of IHSS Group 700-4. There are no recent results from this POC because there have been no recent flows to measure. The closest Point of Evaluation (POE) is SW093, which is located approximately 1,000 feet northeast of IHSS Group 700-4. Water leaving the Industrial Area (IA) and entering the A-Series Ponds and North Walnut Creek is monitored at this location. Results (30-day averages) indicate that radionuclides are less than RFCA surface water ALs.

Gauging station SW120 is approximately 700 feet to the northeast of IHSS Group 700-4 This station is a performance monitoring station in support of D&D activities for the Building 771/774 area. Gauging station GS44 is located approximately 100 feet west of IHSS Group 700-4 and is designed to monitor runoff from the western side of Building 771, including footing drain water. Recent analytical results from SW120 and GS44 indicate americium-241, plutonium-239/240, total uranium, beryllium, cadmium (dissolved), chromium, and silver (dissolved) are less than RFCA ALs and standards Additionally, arsenic concentrations are well below RFCA ALs and standards at SW 120 and GS44. The COCs of interest at IHSS Group 700-4 are summarized in Table 7.

Current groundwater monitoring results from D&D wells around UBC 771 and 774 indicate that carbon tetrachloride, chloroform, and tetrachloroethylene are greater than RFCA Tier II groundwater ALs both upgradient (Well 18199) and cross gradient (Well 20998) of the UBCs The source for this contamination is IHSS 118 1 (IHSS Group 700-3) (DOE 2002) which is also the source for exceedances at Well 20998 Neither carbon tetrachloride nor chloroform were detected at concentrations greater than RFCA groundwater ALs down gradient of IHSS Group 700-4 These analytes were not detected in soil samples from IHSS Group 700-4, and groundwater VOC contamination is not easily attributed to IHSS Group 700-4

Manganese was detected at concentrations slightly greater than the RFCA Tier II groundwater AL and bis(2-ethylhexyl)phthalate was detected at concentrations greater than the RFCA Tier II groundwater AL beneath Building 771 These analytes are not detected at nearby soil sampling locations

Current data do not indicate that IHSS Group 700-4 soil and structures are affecting groundwater or surface water. However, after Buildings 771 and 774 have undergone the D&D process and drains are no longer functioning, groundwater will join the rest of the water table where the potential exists for changes in concentrations. This may result in future Stewardship actions. Monitoring wells around the area will continue to be

sampled as part of the Integrated Monitoring Program (IMP) Further groundwater evaluation will be part of the groundwater plume remedial decision and future Sitewide evaluation

# Screen 5 – Are COC concentrations below Table 3 Action Levels for Ecological Receptors?

No Arsenic exceeds the Ecological Receptor ALs at one location in IHSS Group 700-4, southeast of Building 774 Lead exceeds the Ecological Receptor AL at two locations All other subsurface COC concentrations are below the ALs for Ecological Receptors Ecological factors will be evaluated in the Accelerated Action Ecological Screening Process and the CRA

### 2.3 Characterization Summary

Based on analytical results and the SSRS, action was required at Tank 16 Based on analytical results and the SSRS, action was not required at other areas in IHSS Group 700-4 because of the following

- In accordance with RFCA, an action is required at Tank 16 because the americium-241 and plutonium-239/240 activities exceed the WRW AL within 3 feet of the surface
- In accordance with RFCA, action is not required for elevated radionuclide concentrations beneath the Building 771 and 774 basements because after D&D activities are complete these locations will be at least 6 feet bgs
- The section of Original Process Waste Lines (OPWL) that exits Building 771 and
  runs due west is in the area of the locations that have SVOC concentrations in excess
  of three times the AL These locations are being transferred to IHSS Group 000-2
  where they will become part of the OPWL removal action at Line P-23 and will be
  addressed in closure of that IHSS Group
- Migration of subsurface contaminants to surface water through erosion is unlikely because the exceedances are either not in an area prone to landslides or erosion or after D&D activities are complete will be at least 6 feet bgs
- Migration of contaminants in groundwater will not likely impact surface water because of the low levels or depth of soil contamination found in IHSS Group 700-4 The groundwater contamination is considered part of the IA Plume, which will be further evaluated in a Sitewide groundwater Interim Measure/Interim Remedial Action (IM/IRA)

### 3.0 ER RSOP NOTIFICATION

Benzo(a)pyrene and dibenz(a,h)anthracene were detected at concentrations greater than the WRW ALs. However, based on the 95 percent UCL/AL calculation, action is not required. These locations are being transferred to IHSS Group 000-2 where they will become part of the OPWL removal action at Line P-23 and will be addressed in closure.

of that IHSS Group Soil removal will be conducted in accordance with the ER RSOP Notification 03-14

D&D staff removed Tanks 14 and 16, southeast of Building 774 which had been foamed in 1996 (DOE 1996) Characterization samples were collected adjacent to the tanks and after the tanks were removed, additional characterization samples were collected. The results of sampling analyses are listed in Table 6. Tank characterization sampling results indicated that americium-241 activities ranged from 168.9 pCi/g to 6.115 nCi/g and plutonium-239/240 ranged from 1,367.95 pCi/g to 49.4 nCi/g at Tank 16. Soil sampling results at Tank 14 were less than background means plus two standard deviations or DLs. The sampling results indicated that soil removal was required at Tank 16 only. Sampling locations and results are shown on Figure 9.

This ER RSOP Notification includes the remediation plan and the data that support removal activities Because this Notification is combined with the Closeout Report, the Stewardship Evaluation is conducted for the Closeout Report only The characterization SSRS is documented in Section 2.2

#### 3.1 Remediation Plan

This RSOP Notification remediation plan for IHSS Group 700-4 includes the following objectives

- Remove fill and contaminated soil with radionuclide activities greater than RFCA WRW ALs in accordance with RFCA Attachment 5 at Tank 16 (DOE et al, 2003),
- Collect confirmation samples in accordance with the IASAP (DOE 2001a), and
- Backfill the excavation with clean fill, and then grade the area

It is anticipated that after remediation there will be areas at the site with radionuclide activities greater than background means plus two standard deviations but less than the RFCA ALs

### 4.0 REMOVAL ACTIVITIES

In accordance with the Building 771 DOP (DOE 2003b), Tanks 14 and 16 east of Building 774 were removed by D&D staff Removal activities included the following

- Interior tank foam was removed.
- Incidental water from tanks was removed,
- Tank walls were removed, and
- Broken pieces of foam from tank bottoms were removed

Tank walls, floors, and contents were disposed of after waste characterization Additional information on tank removal and disposal will be available in the D&D closure report

Waste characterization samples, collected by the D&D staff from inside Tank 67, indicated that beryllium was present at concentrations 4 2 mg/L Waste concrete and

foam were analyzed for volatile organic compounds (VOCs) and analytical results indicated that VOCs were not detected in the waste. Additional waste characterization results will be available in the D&D closure report.

After tanks were removed, three soil samples were collected from beneath the tanks. One sample (CH48-027) was collected from beneath Tank 14 and two samples (CG48-025 and CH48-026) were collected from beneath the two tanks listed as Tank 16. Analytical results from these samples are listed in Table 6 and shown on Figure 9. Tank characterization results indicated that americium-241 activities ranged from 168.9 pCi/g to 6.115 nCi/g and plutonium-239/240 ranged from 1,367.95 pCi/g to 49.4 nCi/g at Tank 16. All analytical results from CH48-027 (Tank 14) were less than DLs, except for molybdenum and silver, which were well below background values

Approximately 2,112 cubic feet (ft³) of soil and fill with radionuclide contamination were removed from beneath Tank 16 in November 2003. Confirmation samples were collected at 6 locations. Additionally, one sample (CH48-050) was collected from beneath Tank 14 even though no soil removal was conducted. The results of these analyses are presented in Table 8 and on Figure 10, and the radionuclide SORs for these confirmation samples are listed in Table 9. Americium-241 activities ranged from 6.57 to 226 pCi/g and plutonium-239/240 activities ranged from 5.68 to 179.38 pCi/g. Combined activities at all locations were less than 1 nCi/g and significantly less than the RFCA specified limit of 3 nCi/g at this depth (approximately 4 feet.) beneath Tank 16. SORs are greater than 1 for sampling locations CH48-043, CH48-044, and CH48-045. However, action is not indicated because, in accordance with RFCA, the soil was removed to an activity of less than 1 nCi/g.

Residual contamination in the area where confirmation sampling was conducted, including the area around Tank 14 and Tank 16, is displayed on Figure 10 Residual contamination around the other IHSSs, PACs, and UBCs are shown on Figures 3, 4, 5, 6, 7, and 8 In these areas, the residual contamination is defined by the characterization data

Accelerated action sampling is summarized in Table 10 and summary statistics for the entire project are summarized in Tables 11 and 12. There were no deviations from the ER RSOP (DOE 2003a)

### 4.1 Waste Management

Waste from the IHSS Group 700-4 accelerated action consisted of fill material and soil Approximately 2,112 ft<sup>3</sup> of low-level waste was generated during this accelerated action Waste types, volumes, and disposition are presented in Table 13

Excavated soil was loaded into waste crates at the excavation site Samples were collected from the soil stockpiles to determine the final disposition of the excavated soil

#### 4.2 Site Reclamation

All excavated areas were backfilled after confirmation sampling results were received and discussed with regulatory agencies through the consultative process (Appendix A) Final backfilling and reseeding at the former Tanks 14 and 16 locations will follow final regrading of the Buildings 771 and 774 areas

#### 4.3 Accelerated Action Goals

ER RSOP Notification accelerated action objectives for IHSS Group 700-4 were achieved through the removal of soil and fill material to satisfy RFCA Attachment 5 requirements

Removal activities were consistent with and contributed to the ER RSOP overall long-term remedial action objectives (RAOs) for RFETS soil This contribution is described below

RAO 1 Provide a remedy consistent with the RFETS goal of protection of human health and the environment Removal of soil and fill material with contaminant concentrations greater than RFCA WRW ALs contributed to the protection of human health and the environment because potential sources of contamination were removed

RAO 2 Provide a remedy that minimizes the need for long-term maintenance and institutional or engineering controls Removal of soil and fill material with contaminant concentrations greater than RFCA WRW ALs minimizes the need for long-term maintenance and institutional or engineering controls because potential sources of contamination were removed

RAO 3 Minimize the spread of contaminants during implementation of accelerated actions. Best management practices (BMPs) were used to prevent the spread of contaminants during the accelerated action. Air monitoring data during the accelerated action did not indicate any exceedances.

### 5.0 POST-REMEDIATION CONDITIONS

Residual contaminant concentrations at Tanks 14 and 16, consisting of characterization and confirmation sampling locations greater than background means plus two standard deviations or DLs at IHSS Group 700-4 are shown on Figure 10

The following conditions currently exist at IHSS Group 700-4

- The potential source of contamination that had existed at IHSS Group 700-4 (i.e., the plutonium-239/240 and americium-241 hot spot beneath Tank 16) was removed to an activity of less than 1 nCi/g and covered to grade with 4 feet of clean fill,
- Surface soil contaminant concentrations greater than WRW ALs include arsenic, benzo(a)pyrene and dibenzo(a,h)anthracene,
- Surface soil contaminant concentrations greater than background means plus two standard deviations or DLs includes metals, SVOCs, and radionuclides in soil surrounding Buildings 771 and 774, and
- Subsurface soil contaminant concentrations greater than RFCA WRW ALs includes arsenic at a depth of 4 5 to 6 5 feet bgs southeast of Building 774, radionuclides beneath UBC 774 that will be at a depth of at least 6 feet bgs after D&D activities are complete and beneath UBC 771 that will be at a depth of at least 6 feet bgs after D&D activities are complete, and beneath Tank 16 at a depth of approximately 4 feet bgs

### 5.1 No Longer Representative Sampling Locations

Sampling locations that are No Longer Representative (NLR) include the Tank 16 characterization sampling locations and one sampling location directly east of Tank 16 NLR sampling locations are listed in Table 14

### 6.0 POST-ACCELERATED ACTION SUBSURFACE SOIL RISK SCREEN

The SSRS follows the steps identified in Figure 3 in Attachment 5 of the RFCA Modification (DOE et al. 2003)

## Screen 1 – Are the contaminant of concern (COC) concentrations below RFCA Table 3 WRW Soil Action Levels?

No As shown in Tables 4 and 12 and Figures 3 through 7 and Figure 10, americium-241, arsenic, and plutonium-239/240 exceed soil WRW ALs in subsurface soil

At two locations beneath the Building 774 basement americium-241 and plutonium-239/240 exceed WRW ALs Elevated plutonium-239/240 activities range from 943 to 1,690 pCi/g at UBC774 (Figure 4) Elevated plutonium-239/240 activities range from 56 pCi/g to 157 pCi/g beneath the Building 771 basement (Figures 3 and 8)

Arsenic exceeds the WRW AL at one location southeast of Building 774 (Figure 4) This exceedance is at a depth of 4 5 to 6 5 feet bgs

Americum-241 and plutonium-239/240 exceeded WRW ALs beneath Tank 16, southeast of Building 774 However after the accelerated action radionuclide activity beneath Tank 16 is less than 1 nCi/g

# Screen 2 – Is there a potential for subsurface soil to become surface soil (landslide and erosion areas identified on RFCA Attachment 5 - Figure 1)?

As shown in Figure 1, RFCA Attachment 5, sampling locations beneath the Building 774 basement and southeast of Building 774 are outside the area considered prone to landslides and high erosion. Sampling locations beneath the Building 771 basement are in an area that has been mapped as prone to landslides, but Building 771 basements are very deep and it is anticipated that after D&D activities are complete and the area is backfilled these sample locations will be at least 6 feet bgs. Additionally, regrading and compacting of the D&D fill will further reduce the likelihood of erosion.

## Screen 3 – Does subsurface soil radiological contamination exceed criteria in Section 5.3 and Attachment 14?

No Plutonium-239/240 and americium-241 activities are only greater than 3nCi/g below 6 feet in depth. Areas with radionuclide activity greater than 50 pCi/g are or will be at depths of at least 3 feet bgs. Areas with radionuclide activity greater than 1 nCi/g are or will be at depths of at least 3 feet bgs.

## Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the surface water standard?

Migration via erosion and groundwater are the two possible pathways whereby surface water could become contaminated by IHSS Group 700-4 soil or structures Migration via erosion is unlikely because elevated plutonium-239/240 and americium-241 will be at

least 6 feet bgs after D&D activities are complete. At the depth and location within the remaining building structure these exceedances are not likely to be affected by landslides or erosion. However, the tanks were in a location where erosion could occur. At the two locations beneath the Building 771 basement, where erosion is likely, the exceedances will be at least 6 feet bgs after D&D backfilling, reducing the likelihood of erosion.

Surface water monitoring results do not indicate activities of plutonium-239/240 or americium-241 greater than RFCA surface water ALs. The closest POC is GS11 and it is located approximately 6,000 feet to the east of IHSS Group 700-4. There are no recent results from this POC because there have been no recent flows to measure. The closest POE is SW093, which is located approximately 1,000 feet northeast of IHSS Group 700-4. Water leaving the IA and entering the A-Series Ponds and North Walnut Creek is monitored at this location. Results (30-day averages) indicate that radionuclides are less than RFCA surface water ALs.

Gauging station SW120 is approximately 700 feet to the northeast of IHSS Group 700-4 This station is a performance monitoring station in support of D&D activities for the Building 771/774 area. Gauging station GS44 is located approximately 100 feet west of IHSS Group 700-4 and is designed to monitor runoff from the western side of Building 771, including footing drain water. Recent analytical results from SW120 and GS44 indicate americium-241, plutonium-239/240, total uranium, beryllium, cadmium (dissolved), chromium, and silver (dissolved) are less than RFCA ALs and standards Additionally, arsenic concentrations are well below RFCA ALs and standards at SW 120 and GS44. The COCs of interest at IHSS Group 700-4 are summarized in Table 7.

Current groundwater monitoring results from D&D wells around UBC 771 and 774 indicate that carbon tetrachloride, chloroform, and tetrachloroethylene are greater than RFCA Tier II groundwater ALs both upgradient (Well 18199) and cross gradient (Well 20998) of the UBCs The source for this contamination is IHSS 118 1 (IHSS Group 700-3) (DOE 2002) which is also the source for exceedances at Well 20998 Neither carbon tetrachloride nor chloroform were detected at concentrations greater than RFCA groundwater ALs down gradient of IHSS Group 700-4 These analytes were not detected in soil samples from IHSS Group 700-4, and groundwater VOC contamination is not easily attributed to IHSS Group 700-4

Manganese was detected at concentrations slightly greater than the RFCA Tier II groundwater AL and bis(2-ethylhexyl)phthalate was detected at concentration greater than the RFCA Tier II groundwater AL beneath Building 771 As discussed above, these analytes are not detected at nearby soil sampling locations

Current data do not indicate that IHSS Group 700-4 soil and structures are affecting groundwater or surface water. However, after Buildings 771 and 774 have undergone the D&D process and drains are no longer functioning, groundwater will join the rest of the water table where the potential exists for changes in concentrations. This may result in future Stewardship actions. Monitoring wells around the area will continue to be sampled as part of the IMP. Further groundwater evaluation will be part of the groundwater plume remedial decision and future Sitewide evaluation.

Screen 5 – Are COC concentrations below Table 3 Action Levels for Ecological Receptors?

No Arsenic exceeds the Ecological Receptor AL at one location in IHSS Group 700-4, southeast of Building 774 Lead exceeds Ecological Receptor ALs at several locations All other subsurface COC concentrations are below the ALs for Ecological Receptors Ecological factors will be evaluated in the Accelerated Action Ecological Screening Process and the CRA

### 6.1 Post-Accelerated Action Summary

Based on analytical results and the SSRS, further action is not required, and an NFAA determination is justified for IHSS Group 700-4 because of the following

- The potential source of contamination that had existed at IHSS Group 700-4 (i.e., the plutonium-239/240 and americium-241 hot spot beneath Tank 16) was removed to an activity of less than 1 nCi/g and covered to grade with 4 feet of clean fill,
- Subsurface soil contaminant concentrations greater than RFCA WRW ALs includes arsenic at a depth of 4 5 to 6 5 feet bgs southeast of Building 774, radionuclides beneath UBC 771 and 774 that will be at a depth of at least 6 feet bgs after D&D activities are complete, and beneath Tank 16 at a depth of approximately 4 feet bgs,
- The section of OPWL that exits Building 771 and runs due west is in the area of the locations that have SVOC concentrations in excess of 3 times the AL. These locations are being transferred to IHSS Group 000-2 where they will become part of the OPWL removal action at Line P-23 and will be addressed in closure of that IHSS Group
- Migration of subsurface contaminants to surface water through erosion is unlikely because the locations with results greater than WRW ALs will be well below the ground surface (at least 6 feet at Buildings 771 and 774) after D&D actions are complete, and
- Migration of contaminants from groundwater to surface water is unlikely because although there is groundwater contamination in the area, the most likely source is IHSS Group 700-3 (IHSS 118 1) The groundwater contamination is considered part of the IA Plume, which will be further evaluated in a Sitewide groundwater IM/IRA After Buildings 771 and 774 have undergone the D&D process and building drains are no longer functioning, groundwater will join the rest of the water table where the potential exists for elevated concentrations. This may result in future Stewardship actions.

Approval of this Closeout Report constitutes regulatory agency concurrence that this IHSS Group is an NFAA site. This information and the NFAA determination will be documented in the FY04 HRR

### 7.0 STEWARDSHIP EVALUATION

This stewardship evaluation, applicable to the entire IHSS Group 700-4 is documented in the following sections. The regulatory agencies were informed through frequent project updates, e-mails, telephone contacts, and personal contacts throughout the project duration. Copies of these documents are in Appendix A.

### 7.1.1 Current Site Conditions

As discussed in Section 3 0, the accelerated action at IHSS Group 700-4 consisted of removal of soil with americium-241 and plutonium-239/240 activities greater than RFCA WRW ALs beneath Tank 16 Section 5 0 presents residual contamination information

The following conditions currently exist at IHSS Group 700-4

- The potential source of contamination that had existed at IHSS Group 700-4 (i.e., the plutonium-239/240 and americium-241 hot spot beneath Tank 16) was removed to an activity of less than 1 nCi/g and covered to grade with 4 feet of clean fill,
- Surface soil contaminant concentrations greater than WRW ALs include arsenic, benzo(a)pyrene, and dibenzo(a,h)anthracene,
- The section of OPWL that exits Building 771 and runs due west is in the area of the locations that have SVOC concentrations in excess of three times the AL. These locations are being transferred to IHSS Group 000-2 where they will become part of the OPWL removal action at Line P-23 and will be addressed in closure of that IHSS Group
- Surface soil contaminant concentrations greater than background means plus two standard deviations or DLs includes metals, SVOCs, and radionuclides in IHSS soil surrounding Buildings 771 and 774, and
- Subsurface soil contaminant concentrations greater than RFCA WRW ALs includes arsenic at a depth of 4 5 to 6 5 feet bgs southeast of Building 774, radionuclides beneath UBC 771 and 774 that will be at a depth of at least 6 feet bgs after D&D activities are complete, and beneath Tank 16 at a depth of approximately 4 feet bgs

### 7.1.2 Near-Term Management Recommendations

The accelerated action for IHSS Group 700-4 met the accelerated action objectives Contaminant concentrations in soil remaining at IHSS Group 700-4 do not trigger any further accelerated action based on RFCA Additionally, SVOC exceedances were transferred to IHSS Group 000-2 Excavations were backfilled to current grade This area as well as Buildings 771 and 774 will be backfilled after D&D activities are complete Final grade in this area will be at least the same as current grade, if not higher

Because AL exceedances still exist at this site, groundwater and surface water monitoring will continue as part of the IMP Groundwater will be further evaluated in a Sitewide groundwater IM/IRA

Potential contaminant sources and pathways have been removed, mitigated, or found not to have existed Excavation at the site will continue to be controlled through the Site soil disturbance permit process. Access will be restricted to minimize disturbance to newly revegetated areas. Site access and security controls and the soil disturbance permit process will remain in place pending the implementation of long-term controls. No other near-term management techniques are required because of environmental conditions.

Because SVOCs WRW AL exceedances are along OPWL P-23, additional removal actions will be evaluated as part of IHSS Group 000-2 activities

### 7.1.3 Long-Term Stewardship Recommendations

Residual SVOC and metal contamination in surface soil and metal and radionuclide contamination in subsurface soil will be analyzed in the Sitewide Comprehensive Risk Assessment (CRA), which is part of the RCRA Facility Investigation/Remedial Investigation and Corrective Measures Study/Feasibility Study (RFI/RI and CMS/FS) that will be conducted for the Site. The need for and extent of any, more general, long term stewardship activities will also be analyzed in the RFI/RI and CMS/FS and will be proposed as part of the preferred alternative in the Proposed Plan for the Site Institutional controls and other long term stewardship requirements for Rocky Flats will ultimately be contained in a Corrective Action Decision/Record of Decision (CAD/ROD), in any post-closure Colorado Hazardous Waste Act permit that may be required, and in any post-RFCA agreement

No specific long term stewardship activities are recommended for IHSS Group 700-4 beyond the generally applicable Site requirements that may be imposed on this area in the future, which are dependent upon the final remedy selected. Institutional controls that will be used as appropriate for this area include prohibitions on construction of buildings in the IA, restrictions on excavation or other soil disturbance, or prohibitions on groundwater pumping in the area of IHSS Group 700-4

No specific engineered controls are anticipated as a result of the conditions remaining in IHSS Group 700-4

This closeout report and associated documentation will be retained as part of the Rocky Flats administrative record file These specific long-term stewardship recommendations will also be summarized in the Rocky Flats Long-Term Stewardship Strategy

### 7.1.4 Accelerated Action Stewardship

Stewardship actions that were implemented during the accelerated action included air monitoring, posting signs and barriers, including yellow chain and jersey barriers

### 8.0 DATA QUALITY ASSESSMENT

The Data Quality Objectives (DQOs) for this project are described in the IASAP (DOE 2001a) All DQOs for this project were achieved based on the following

- Regulatory agency approved sampling program design (IASAP Addendum #03-01 [DOE 2002),
- Collection of samples in accordance with the sampling design, and
- Results of the Data Quality Assessment as described in the following sections

### 8.1 Data Quality Assessment Process

The DQA process ensures that the type, quantity and quality of environmental data used in decision making are defensible, and is based on the following guidance and requirements

• EPA QA/G-4, 1994a, Guidance for the Data Quality Objective Process,

- EPA QA/G-9, 1998, Guidance for the Data Quality Assessment Process, Practical Methods for Data Analysis, and
- DOE Order 414 1A, 1999, Quality Assurance

Verification and validation (V&V) of the data are the primary components of the DQA. The final data are compared with original project DQOs and evaluated with respect to project decisions, uncertainty within the decisions, and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Validation criteria are consistent with the following RFETS-specific documents and industry guidelines.

- EPA 540/R-94/012, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,
- EPA 540/R-94/013, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, and
- Kaiser-Hill Company, L L C (K-H) V&V Guidelines
  - General Guidelines for Data Verification and Validation, DA-GR01-v1, 2002a
  - V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v1, 2002b
  - V&V Guidelines for Volatile Organics, DA-SS01-v1, 2002c
  - V&V Guidelines for Semivolatile Organics, DA-SS02-v1, 2002d
  - V&V Guidelines for Metals, DA-SS05-v1, 2002e
- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5

This report will be submitted to the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) Administrative Record (AR) for permanent storage 30 days after being provided to CDPHE and/or U S EPA

### 8.2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements. Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly. The V&V process defines the criteria that constitute data quality, namely PARCCS parameters. Data traceability and archival are also addressed. V&V criteria include the following.

- Chain-of-custody,
- Preservation and hold-times.

- Instrument calibrations,
- Preparation blanks,
- Interference check samples (metals),
- Matrix spikes/matrix spike duplicates (MS/MSD),
- Laboratory control samples (LCS),
- Field duplicate measurements,
- Chemical yield (radiochemistry),
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively), and
- Sample analysis and preparation methods

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (i.e., within tolerances acceptable to the project) Satisfactory V&V of laboratory quality controls are captured through application of validation "flags" or qualifiers to individual records

Raw hardcopy data (e g, individual analytical data packages) are currently filed by RIN and are maintained by Kaiser-Hill Analytical Services Division, older hardcopies may reside in the Federal Center in Lakewood, Colorado Electronic data are stored in the RFETS Soil and Water Database

QC data, as of November 11, 2003 are included on the enclosed CDs

### 8.2.1 Accuracy

The following measures of accuracy were evaluated

- Laboratory Control Sample Evaluation,
- Surrogate Evaluation,
- Field Blanks, and
- Sample Matrix Spike Evaluation

Results are compared to method requirements and project goals. The results of these comparisons are summarized for RFCA COCs where the result could impact project decisions. Particular attention is paid to those values near ALs when quality control (QC) results could indicate unacceptable levels of uncertainty for decision-making purposes.

### <u>Laboratory Control Sample Evaluation</u>

The frequency of LCS measurements, relative to each laboratory batch, is presented in Table 15 LCS frequency was adequate based on at least one LCS per batch. The minimum and maximum LCS results are also tabulated, by chemical, for the entire project. While not all LCS results are within tolerances, project decisions based on AL exceedances were not affected. LCS results that were outside of tolerances were

reviewed to determine whether a potential bias might be indicated LCS recoveries are not indicative of matrix effects since they are not prepared using Site samples LCS results do indicate whether the laboratory may be introducing a bias in the results Recoveries reported above the upper limit may indicate the actual sample results are less than reported. Since this is environmentally conservative, no further action is needed. The analytes with unacceptable low recoveries were evaluated. If the highest sample result is less than the AL divided by the lowest LCS recovery for that analyte, no further action is taken because any indicated bias is not great enough to make a falsely low sample result be above the AL. As a result of these analyses, the LCS recoveries for this project did not impact project decisions.

Any qualifications of results due to LCS performance exceeding upper or lower tolerance limits are captured in the V&V flags, described in the Completeness Section

### Surrogate Evaluation

The frequency of surrogate measurements, relative to each laboratory batch, is given in Table 16 Surrogate frequency was adequate based on at least one set per sample. The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project. Surrogates are added to every sample, and therefore, surrogate recoveries only impact individual samples. Unacceptable surrogate recoveries can indicate potential matrix effects. The highest and lowest surrogate recoveries for this project were reviewed and the associated samples results were not near enough to the action limit to indicate project decisions would be impacted. Any qualifications of results due to surrogate results are captured in the V&V flags, described in the Completeness Section.

### Field Blank Evaluation

Results of the field blank analyses are given in Table 17 Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of samples, are evaluated if the same contaminant is detected in the associated real samples. When the real result is less than 10 times the blank result for laboratory contaminants and 5 times the result for non-laboratory contaminants, the real result is eliminated. None of the chemicals detected in blanks were detected at concentrations greater than ALs, therefore no significant blank contamination is indicated.

### Sample Matrix Spike Evaluation

The frequency of MS measurements, relative to each laboratory batch, was adequate based on at least one MS per batch. The minimum and maximum of MS results are summarized by chemical, for the entire project in Table 18. Organic analytes with unacceptable low recoveries resulted in a review of the LCS recoveries. According to the EPA data validation guidelines, if organic matrix spike recoveries are low, then the LCS recovery is to be checked and, if acceptable, no action is to be taken. For this project, these checks indicate no decisions were impacted for organic analytes. For inorganics, the associated sample results were divided by the lowest percent recovery for each analyte. If the resulting number is less than the AL, decisions were not impacted, so no action was taken. For this project, all results were acceptable, however, aluminum, iron and manganese had 0% recovery as a low. For these analytes, the AL was at least a factor of three times higher than the highest sample result, so no decisions were impacted

While some of the recoveries appear to be low, they would not result in rejection of data that affects the project decision

#### 8.2.2 Precision

### Matrix Spike Duplicate Evaluation

Laboratory precision is measured through use of MSD. Adequate frequency of MSD measurements is indicated by at least one MSD in each laboratory batch. Table 19 indicates that MSD frequencies were adequate. The analytes with the highest RPDs were reviewed by comparing the highest sample result to the AL. If the highest samples were sufficiently below the AL, no further action is needed. For this project, the reviews indicated decisions were not impacted. While some of the recoveries appear to be low, they would not result in rejection of data that affects the project decision.

### Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process. The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent. Table 20 indicates that sampling frequencies were adequate.

The RPDs listed in Table 21, indicate how much variation exists in the field duplicate analyses. The EPA data validation guidelines state that "there are no required review criteria for field duplicate analyses comparability". For the DQA, the highest Max RPDs were reviewed. The highest sample amount for those analytes were corrected for the associated RPD and the resulting number was compared to the AL. For this project, none of the corrected numbers were greater than the AL, so project decisions were not impacted.

### Completeness

Based on original project DQOs, a minimum of 25 percent of ER Program analytical (and radiological) results must be formally verified and validated. Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical laboratory practices are consistent with quality requirements. Table 22 shows the number and percentage of validated records (codes without "1"), the number and percentage of verified records (codes with "1"), and the percentage of rejected records for each analyte group. Gamma spectroscopy validation is listed as 12 percent, however, 84 8 percent of the alpha spectroscopy results were validated. Because the frequency of validation is within project quality requirements and in compliance with the RFETS validation goal of 25 percent of all analytical records the results indicate that these data are adequate

### 8.2.3 Sensitivity

Reporting limits, in units of ug/kg for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with proposed RFCA WRW and Ecological Receptor ALs Adequate sensitivities of analytical methods were attained for all COCs that affect project decisions expect those listed in Table 23 "Adequate" sensitivity is defined as a reporting limit less than an analyte's associated AL, typically less than one-half the AL The reported DLs for uranium-235 at two locations were greater than the AL Estimated

results for both of these analytes were several orders of magnitude less than the DL and did not therefore affect project decisions

### 8.3 Summary of Data Quality

The RPDs greater than 35 percent indicate that the sampling precision limits for some analytes has been exceeded. However, the imprecision does not affect project decisions because the only non-radionuclide WRW AL exceedances is arsenic. The arsenic RPD was less than 35 percent, and does not affect project decisions. One metal record out of 828 records was rejected. This rejection did not affect project decisions. Uranium-235 DLs were slightly greater than the AL at two locations. Because the estimated detection was several orders of magnitude less than the DL, project decisions were not affected. Compliance with the project quality requirements and RFETS validation goal of 25 percent of all analytical records indicates that these data are adequate. If additional V&V information is received, IHSS Group 700-4 records will be updated in the Soil Water. Database. Data qualified as a result of additional data will be assessed as part of the Comprehensive Risk Assessment process. Data collected and used for IHSS Group 700-4 is adequate for decision-making.

### 9.0 PROJECT NFAA SUMMARY

Based on analytical results and the SSRS, further action is not required, and an NFAA determination is justified for IHSS Group 700-4 because of the following

- The potential source of contamination that had existed at IHSS Group 700-4 (i.e., the plutonium-239/240 and americium-241 hot spot beneath Tank 16) was removed to an activity of less than 1 nCi/g and covered to grade with 4 feet of clean fill,
- Subsurface soil contaminant concentrations greater than RFCA WRW ALs includes arsenic at a depth of 4 5 to 6 5 feet bgs southeast of Building 774, radionuclides beneath UBC 771 and 774 that will be at a depth of at least 6 feet bgs after D&D activities are complete, and beneath Tank 16 at a depth of approximately 4 feet bgs
- The section of OPWL that exits Building 771 and runs due west is in the area of the locations that have SVOC concentrations in excess of 3 times the AL. These locations are being transferred to IHSS Group 000-2 where they will become part of the OPWL removal action at Line P-23 and will be addressed in closure of that IHSS Group
- Migration of subsurface contaminants to surface water through erosion is unlikely because the locations with results greater than WRW ALs will be well below the ground surface (at least 6 feet at Buildings 771 and 774) after D&D actions are complete, and
- Migration of contaminants from groundwater to surface water is unlikely because
  although there is groundwater contamination in the area, the most likely source is
  IHSS Group 700-3 (IHSS 118 1) The groundwater contamination is considered part
  of the IA Plume, which will be further evaluated in a Sitewide groundwater IM/IRA
  After Buildings 771 and 774 have undergone the D&D process and building drains

are no longer functioning, groundwater will join the rest of the water table where the potential exists for elevated concentrations This may result in future Stewardship actions

Approval of this Closeout Report constitutes regulatory agency concurrence that this IHSS Group is an NFAA site This information and the NFAA determination will be documented in the FY04 HRR

#### 10.0 REFERENCES

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### Table 1 IHSS Group 700-4

IHSS/PAC/UBC Site	Description
UBC 771	Plutonium and Americium Recovery Operations
UBC 774	Liquid Process Waste Treatment
700-150 2(N)	Radioactive Site West of Buildings 771/776
700-163 1	Radioactive Site 700 North of Building 774 (Area 3) Wash Area
700-163 2	Radioactive Site 700 Area 3 Americium (Am) Slab
700-215	Abandoned Sump Near Building 774 Unit 55 13 T-40
700-139(N)(b)	Hydroxide Tank, KOH, NaOH Condensate
700-124 1	30,000-Gallon Tank (68)
700-124 2	14,000-Gallon Tank (66)
700-124 3	14,000-Gallon Tank (67)
700-125	Holding Tank
700-126 1	Westernmost Out-of-Service Process Waste Tank
700-126 2	Easternmost Out-of-Service Process Waste Tank
000-121	Tank 8 - Original Process Waste Line (OPWL) - East and West Process Tanks
000-121	Tank 12 - OPWL - Two Abandoned 20,000-Gallon Underground Concrete Tanks
000-121	Tank 13 - OPWL - Abandoned Sump - 600 Gallons
000-121	Tank 14 - OPWL - 30,000-Gallon Concrete Underground Storage Tank (68)
000-121	Tank 15 - OPWL - Two 7,500-Gallon Process Waste Tanks (34W, 34E)
000-121	Tank 16 - OPWL - Two 14,000-Gallon Concrete Underground Storage Tanks (66, 67)
000-121	Tank 17 - OPWL - Four Concrete Process Waste Tanks (30, 31, 32, 33)
000-121	Tank 36 - OPWL - Steel Carbon Tetrachloride Sump
000-121	Tank 37 - OPWL - Steel-Lined Concrete Sump
700-139 2	Caustic/Acid Spills Hydrofluoric Tank
700-146 1	Concrete Process 7,500-Gallon Waste Tank (31)
700-146 2	Concrete Process 7,500-Gallon Waste Tank (32)
700-146 3	Concrete Process 7,500-Gallon Waste Tank (34W)
700-146 4	Concrete Process 7,500-Gallon Waste Tank (34E)
700-146 5	Concrete Process 7,500-Gallon Waste Tank (30)
700-146 6	Concrete Process 7,500-Gallon Waste Tank (33)
700-150 1	Radioactive Site North of Building 771
700-150 3	Radioactive Site Between Buildings 771 and 774

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Comment	No significant difference Depth interval measured from beneath building	Relocated approximately 3 feet because of structural interference in the building floor Depth interval measured from beneath building	No significant difference Depth interval measured from beneath building	Relocated because of column footing Depth interval measured from beneath building	Relocated north west approximately 10 feet because of structural interference in the building floor Depth interval measured from beneath building	No significant difference Depth interval measured from beneath building	Relocated out of men's restroom to Room 123 Depth interval measured from beneath building	Radionuclides Relocated west approximately 12 feet  Metals because of structural interference in seconds. OCs  VOCs Depth interval measured from beneath building	Relocated out of Corndor G Building management did not allow drilling in corndors Depth interval measured from beneath building
Analyte	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs
Depth Interval	.5 0-0	0-0 5.	0-0 2.	0-0 2.	.5 0-0	0-0 5.	0-0 5.	0-0 5.	0-0 5'
Media	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil
Actual Northing	750861 638	750868 318	750928 227	751008 889	751017 226	751051 826	751061 817	750852 612	750875 703
Actual Easting	2083724 010	2083652 650	2083696 625	2083669 240	2083593 326	2083713 215	2083651 790	2083783 752	2083915130
Proposed Northing	750861 638	750871 216	750928 227	750994 815	751004 394	751051 826	751061 404	750852 059	750899 491
<b>Proposed Easting</b>	2083724 010	2083652 650	2083696 625	2083669 240	2083597 880	2083713 215	2083641 855	2083795 370	2083910 705
Location	CE47 000	CE47-001	CE47-002	CE48-000	CE48-001	CE48-002	CE48 003	CF47-000	CF47-001
IHSS/PAC/UBC Site	UBC 771 Plutonium and Americium Recovery Operations	(All depths start below building slab )							

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

Comment	No significant difference Depth interval measured from beneath building	No significant difference Depth interval measured from beneath building	Relocated because of structural interference in the building floor	Location Code changed to CF48-021 because of depth change	Location Code changed to CF48-021 because of depth change	Interval "C" of this sample location not sampled because of refusal	ន	Radionuclides Location Code changed to CF48-022 because of depth change	Locat Inter no	Radionuclides Relocated approximately 15 feet west Metals because of structural interference in SVOCs Depth interval measured from beneath building	Relocated to Room 114 Depth interval measured from beneath building	No significant difference Depth interval measured from beneath building
Analyte	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides	Radionuclides	Radionuclides Metals SVOCs VOCs	Radionuclides	Radionuclides	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs	Radionuclides Metals SVOCs VOCs
Depth Interval	0-0 2,	0-0 2,	5 0-0	.S 0 <del>-</del> 0	05-25	2545	.5 0-0	0 5-2 5'	2545'	0-0 5	.5 0-0	0-0 5.
ed Actual Actual Media Depth Analyt	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil
Actual Northing	750909 070	750918 648	750966 080							751032 66900	751042 24700	751089 67900
Actual Easting	2083839 345	2083767 985	2083885 803							2083840 61832	2083792 44032	2083899 91000
S =	750909 070	750918 648	750966 080	750975 659	750975 659	750975 659	750985 237	750985 237	750985 237	751032 669	751042 247	751089 679
Proposed Proj Easting Nor	2083839 345	2083767 985	2083883 320	2083811 960	2083811 960	2083811 960	2083740 600	2083740 600	2083740 600	2083855 935	2083784 575	2083899 910
Location	CF47 002	CF47-003	CF48-000	CF48-001A	CF48 001B	CF48-001C	CF48-002A	CF48-002B	CF48-002C	CF48-003	CF48-004	CF48 005
IHSS/PAC/UBC Site												

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

Sife CA	-	rroposeu	Proposed	Actual	Actual	Media	Depth	Analyte	Comment
5  5	Code	Easting	Northing	Easting	Northing		Interval	•	
5	CF48-006	2083828 550	751099 258	2083828 55000	751099 25800	Subsurface Soil	0-0 5.	Radionuclides	No significant difference
5			_					Metals	Depth interval measured from
p				<u> , -</u>				2005 2007	beneath building
	CF48-007	2083757 190	751108 836	2083762 57154	751118 35718	Subsurface Soil	0-0 5'	Radionuclides	Relocated out of corridor C
	:							Metals	Building management did not allow
			_					SVOCs	drilling in corridors
								VOCs	Depth interval measured from
									beneath building
CF	CF48-008	2083872 525	751156 268	2083872 52500	751156 26800		0-0 2,	Radionuclides	No significant difference
								Metals	Depth interval measured from
<del></del>								ာ (၁) (၁) (၁)	beneath building
5	CF48-021			2083811 96	750975 70	Subsurface Soil	0-05	Radionuclides	Radionuclides Replaced CF48-001 because of depth
	   !							Metals	change
								SVOCs	0
								VOCs	
<u>p</u>	CF48-022			2083740 600	750985 237	Subsurface Soil	1-15	Radionuclides	Replaced CF48-002
_								Metals	Depth interval measured from
								SVOCs	beneath building
								VOCs	
<u>්</u>	CF48-024		_	789 697 502	751003 428	Subsurface Soil	1-1 5.	Kadionuclides	Replaced CF48-011
-		<del></del>						Metals	Depth interval measured from beneath hinding
		j						VOCs	9::::::::::::::::::::::::::::::::::::::
00	CG48-002	2083971 270	751080 101			Subsurface Soil	.5 0-0	Radionuclides	Location deleted because of close
								Metals	proximity to CG48-013
								20X 20X	
UBC 774 - Liquid Process CG	CG48-000	2084113 990	751060 944	2084113 99000	751060 94400	Subsurface Soil	.5 0-0	Radionuclides	No significant difference
Waste Treatment								Metals	Depth interval measured from
***************************************								SVOC.	beneath building
(All denths start helpw	CG48-001	2084042 630	751070 523	2084043 90467	751074 34701	Subsurface Soil	0-0 <b>5</b> .	Radioniclides	Refocated annoximately 3 feet
							}	Metals	because of structural interference in
								SVOCs	the building floor
					_			VOCs	Depth interval measured from
E	CH48-001	2084185 350	751051 366			Subsurface Soil	0-0 5'	Radionuclides	Location deleted because of close
i				-				Metals	proximity to CG48-005
					_			ဘီလို လ	

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

	Analyte Comment	Radionuclides Proposed building sump locations Metals moved to actual sump locations SVOCs Depth interval from beneath	NOCs building/sump Radionuclides Not collected, active sump Metals SVOCs	Radionuclides Proposed building sump locations Metals moved to actual sump locations SVOCs Depth interval measured from heneath huilding/sumn	Radionuclides Proposed building sump locations Metals moved to actual sump locations SVOCs Depth interval measured from VOCs beneath building/sump	Z Sep	Radionuclides Location Code changed to CF48-024 Metals SVOCs	Radionuclides Location Code changed to CF48-024 because of depth "B" interval not sampled because of refusal	Radionuclides Location Code changed to CF48-024 because of depth 'C" interval not sampled because of refusal	Radionuclides Proposed building sump locations Metals moved to actual sump locations SVOCs Depth interval measured from beneath building/sump	Radionuclides Proposed building sump locations moved to actual sump locations
	Depth A	0-05' Rad	0-05' Rad	0-0 8' Rad	0-0 5' Rad	0-0 5 Rad	0-0 5' Rad	0 5-2 5' Rad	2 5-4 5' Rad	0-0 5' Rad	05-2 5' Rad
	Media	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil
,	Actual Northing	750988 585		750895 053	751022 091		751009 22350			750974 55100	750974 55100
	Actual Easting	2083695 474		2083793 656	2083899 630		2083763 47753			2083746 24671	2083746 24671
	Proposed Northing	750986 102	750890 086	750890 086	751092 947	751037 359	751003 428	751003 428	751003 428	750974 551	750974 551
	Proposed Easting	2083683 056	2083919 125	2083781 238	2083764 633	2083755 248	2083769 687	2083769 687	2083769 687	2083754 526	2083754 526
	Location Code	CE48-007	CF47 004	CF47-005	CF48-009	CF48-010	CF48-011A	CF48-011B	CF48-011C	CF48-012A	CF48-012B
	IHSS/PAC/UBC Site										

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Proposed         Proposed         Actual         Actual         Media           Easting         Northing         Easting         Northing         Media           2083754 526         750974 551         2083746 24671         750974 55100         Subsurface Soil
2083748 751 750966 610 2083776 486 750968 679
2083724 006 751010 236
2083684 818 750993 441
20833695 02
<u>2083704 813</u> 751196 300 <u>20833695 02</u> 751217 86
2083704 813 751196 300 20833695 02 751217 86
2083727 530 751192 893 2083708 276 751217 858

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

IHSS/PAC/UBC Lo Site C									
CE	Location Code	Proposed Easting	Proposed Northing	Actual Easting	Actual Northing	Media	Depth Interval	Analyte	Comment
	_	2083727 530	751192 893	2083708 276	751217 858	Subsurface Soil	0 5-2 5'	Radionuclides	Moved north approximately 15 feet
		, , , , , , , , , , , , , , , , , , ,	<u>.</u>					Metals	because of power line
		<del></del>						Nitrate	
								PCBs VOCs	
B	CE49-009G	2083727 530	751192 893	2083708 276	751217 858	Subsurface Soil	10 5-12 5'	Radionuclides	Moved north approximately 15 feet
								SVOCS	occause of power line
				· ·				Nitrate	
	,							200 200 200 200 200 200 200 200 200 200	
<u> </u>	CG48-022			2084098 600	750984 589	Subsurface Soil	0-05	Radionuclides	Originally to target OPWL, however
								Metals	no OPWL observed
			i	:			:	20X 20X	Used for additional coverage of Room 241
Miscellaneous Tanks CG	CG48-011C	2084113 720	751032 738	2084113 720	751032 738	Surface Soul	0-05	Radionuclides	Tanks are ASTs soil sampled 0-05
753	CG48-012C	2084114 856	751013 428	2084114 856	751013 428	Surface Soil	0-05	Radionuclides Metals	Tanks are ASTs, soil sampled 0-05
Š	CG48-013C	2083979 689	751086 123	2083979 689	751086 123	Surface Soil	0-0 5	Radionuclides Metals	Tanks are ASTs soil sampled 0-05
Tanks 14 and 16 CH	CH48-017F	2084148 576	751041 784	2084157 498	751042 102	Subsurface Soil	8 5-10 5'	Radionuclides	Moved to adjacent to Tank
								Nitrate	
Ď	CH48-018F	2084142 382	751018 202	2084142 063	751011 828	Subsurface Soil	8 5-10 5'	Radionuclides Metals Nitrate	No significant difference
Ť	CH48-019F	2084155 960	751017 487	2084162 970	751023 541	Subsurface Soil	8 5-10 5'	Radionuclides Metals Nitrate	Moved to adjacent to Tank
-	CG48 006	2084095 604	751097 309	2084095 604	751097 309	Subsurface Soil	0-0 2.	Radionuclides	No significant difference
Abandoned Sump Near Building 774 Unit 55 13 T-								Metals Nitrate	Depth interval measured from beneath building
94	200	1000	751007001	200 100 100	751007 001	1.0	T	SVOC	2
3	CG48-00/	2084126 123	152 /8015/	2084120 123	152 /8016/	Subsurface Soil	, 0-0	Kadionuciides Metals Nitrate	No significant difference Depth interval measured from beneath huilding
								svoc	9

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Location F	Proposed	Proposed	Actual	Actual	Media	Depth	Anaivte	Comment
竺	Easting	Northing	Easting	Northing		Interval		
087	1126 045	751068 741	2084126 045	751068 741	Subsurface Soil	20-25	Radionuclides	Radionuclides Collected beneath groundwater sump
							Metals	in Room 103
		<u> </u>				<del>-</del>	Nitrate	Depth interval measured from
Įč	2084095 838	751069 053	2084095 838	751069053	Subsurface Soil	15 0-0	Radioniiclides	No stonificant difference
2							Metals	Depth interval measured from
							Nitrate	beneath building
8	2084110 200	751082 557	2084110 200	751082 557	Subsurface Soil	0-0 5'	Radionuclides	No significant difference
}						_	Metals	Depth interval measured from
			-			-	Nitrate SVOC	beneath building
			2084095 604	751097 309	Subsurface Soil	0-0 5'	Radionuclides	Resample of CG48-006
				•			Metals	
				-			Nitrate SVOC	
ခြ	2083705 409	751183 646	2083697 46	751185 70	Subsurface Soil	45-65	Radionuclides	Relocated adjacent to OPWL
							Metals	
10	2084147 496	751023 055	2084180 956	751051 416	Subsurface Soil	45-65'	Radionuclides	Relocated 30 feet northwest
							Metals	Close to P-26
ļ						٦	Nitrate	
Q	2084184413	750994 444	2084184 407	750994 441	Subsurface Soil	45-65'	Radionuclides	No significant difference
							Metals	Moved several feet north along
Ţ	2004014 502	751110 064	2004011 52	751137 63	C. hourdays Co.1	1666	Ţ	7 4 5
Š	292	101119 904	2004011 33	60 /6116/	Suosuitace Son			Moved approximately nve reet norm along P-26
ΙÕ	2084095 811	751012 903	2084095 811	751012 90	Subsurface Soil	25-45	Radionuclides	No significant difference in location
							Metals Nitrate	Onginal collection interval specified as $45-65$ '
18	2083554 235	751130 839			Subsurface Soil	45-65'	Radionuclides Metals	Not Sampled Transferred to IHSS Group 000-2
Į	277 72300	250040 100				T	Nitrate	
ã !	2083556 465	/50949 102			Subsurface Soil	4 3-6 3.	Kadionuclides Metals Nitrate	Not Sampled Transferred to IHSS Group 000-2
	2084093 873	750890 009	2084093 865	750889 9820	Subsurface Soil	45-65'	Radionuclides Metals	No significant difference
- 1							Nitrate	

Table 2 IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Proposed     Easting		Actual Easting	Actual	Media	Depth Interval	Analyte	Comment
750900 044	2084102	832	750900 030	Subsurface Soil	45-65'	Radionuclides Metals Nitrate	No significant difference
751178 113	208359	8 84	751172 24	Subsurface Soil	4 5-6 5'	Radionuclides	Radionuclides Relocated approximately 10 feet west because of power line
CE48-023D 2083571 940 750964 042 2083496 01	20834	10 96	751033 59	Subsurface Soil	0-0 5.	Radionuclides	Original location maccessible because of hillslope Sampled at outfall of pipe to the north
CE48-024D 2083606 504 751119 021 2083	2083	2083613 42	751136 35	Subsurface Soil	4 5-6 5'	Radionuclides	Moved north 15 feet because of utility/power line
CG49-006D 2084024 612 751207 102 2084	2084	2084026 45	751216 17	Subsurface Soil	0-0 5'	Radionuclides	Original location maccessible because of powerline. Sampled at outfall of pipe to the north
-	208	2083922 24	751112 331	Subsurface Soil	4 5-6 5'	Radionuclides	Relocated to clear communication line
CF49-017D 2083781 552 751200 413 2083	2083	2083781 676	751190 43	Subsurface Soil	4 5-6 5'	Radionuclides	Relocated 10 feet south and 15 feet west because of utility lines
751168 079	208	2084098 14	751197 33	Subsurface Soil	0-0 5'	Radionuclides	Sampled at outfall north of original location
751121 251	708	2084126 519	751119 415	Subsurface Soil	4 5-6 5'	Radionuclides	Offset 2 feet to southwest
2083735 310	20837	2083735 310	750843 609	Subsurface Soil	0-0 5'	Radionuclides Metals SVOC VOC	No significant difference
750766 477	2083	2083725 533	750766 477	Subsurface Soil	0-0 5'	Radionuclides Metals SVOC VOC	No significant difference
CE46-001 2083707 065 750662 186 2083	2083	2083707 065	750662 186	Subsurface Soil	.5 0-0	Radionuclides Metals SVOC VOC	No significant difference
751140 525	2083	2083690 363	751144 198	Surface Soil	0-0 5'	Radionuclides Metals SVOC	Moved out from wall 5 feet to the northwest
CE48-009 2083632 898 751129 436 208	208	20836418	751129 707	Surface Soil	0-0 2	Radionuclides Metals SVOC	Moved 10 feet east because of utilities On boundary of IHSS 150 2(N) and IHSS 150 1

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Comment	Relocated 10 feet west because of proximity to underground utilities	No significant difference	No significant difference	No significant difference	Radionuclides Moved east because original location Metals was under a building SVOC	No significant difference								
Analyte	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC
Depth Interval	0-0 5'	.5 0-0	.50-0	.50-0	.50-0	.6-0-5	.5 0-0	0-0 5'	.5 0-0	0-0 5'	.5 0-0	.5 0-0	0-0 2,	0-0 2,
Media	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soul	Surface Soil				
Actual Northing	751140 562	751106 199	750964 572	750929 184	751118 234	751082 916	750976 547	750941 287	750905 49	750870 394	751130 541	751095 089	751059 651	751024 376
Actual Easting	2083609	2083505 4	2083630 96	2083637 74	2083586 48	2083577 94	2083597 19	2083603 58	2083609 82	208361636	2083537 71	2083544 06	2083550 49	2083556 71
Proposed Northing	751141 604	751106 178	750964 474	750929 048	751118347	751082 921	750976 642	750941 216	750905 790	750870 364	751130 515	751095 089	751059 663	751024 237
Proposed Easting	2083599 017	2083605 419	2083631 029	2083637 431	2083571 538	2083577 941	2083597 148	2083603 550	2083609 952	2083616 355	2083537 657	2083544 060	2083550 462	2083556 864
Location	CE48-010	CE48-011	CE48-012	CE47-011	CE48-013	CE48-014	CE48-015	CE47-012	CE47-013	CE47-014	CE48-016	CE48-017	CE48-018	CE48-019
IHSS/PAC/UBC Site														

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

Comment	Moved five feet south for accessibility	No significant difference	No significant difference	No significant difference Moved to avoid fence	No significant difference Moved to avoid fence	No significant difference Moved to avoid fence	No significant difference	No significant difference	No significant difference	No significant difference	No significant difference	No significant difference
Analyte	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOC	Radionuclides Metals SVOCs PCBs	Radionuclides Metals SVOCs PCBs	Radionuclides Metals SVOCs PCBs	Radionuclides Metals SVOCs PCBs
Depth Interval	0-0 5.	0-0 5.	0-0 5.	.5 0-0	0-0 5'	0-0 5.	0-05	0-0 %	0-0 %	0-0 2.	0-0 %	0-0.5'
Media	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soul	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Actual Northing	750948 167	750917 939	750882 553	751000 938	750965 504	750930 086	750894 757	750859 097	751091815	751088 041	751083 745	751120 857
Actual Easting	2083569 49	2083576 04	2083582 47	2083529 39	2083535 82	2083542 17	2083548 62	208348 62	2084304 12	2084268 29	2084232 38	2084282 64
Proposed Northing	750953 385	750917 958	750882 532	626 000152	750965 553	750930 127	750894 701	750859 275	751091 925	751087 955	751083 986	751120 927
Proposed Easting	2083569 669	2083576 071	2083582 474	2083529 385	2083535 788	2083542 190	2083548 593	2083554 995	2084304 082	2084268 301	2084232 521	2084282 754
Location	CE47-015	CE47-016	CE47-017	CD48-000	CD48-001	CE47-018	CE47-019	CE47-020	CH48-005	CH48-006	CH48-007	CH48-008
IHSS/PAC/UBC Site									700-163 1 - Radioactive Site 700 North of Building 774 (Area 3) Wash Area			

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Tations	Analyte Comment	Radionuclides No significant difference Metals SVOCs PCBs	Radionuclides Relocated approximately 15 feet to Metals the east, original location under								
s alla De	Depth Interval	0-0 5'	0-0 5'	0-0 5'	0-0 5.	0-0 2	0-0 2,	0-0 5.	0-0 2.	.5 0-0	.5 0-0
Specialization	Media	Surface Soil									
Chalacterization Samping Specifications and Deviations	Actual Northing	751117 138	75111281	751154 026	751149 902	751146 003	751141 918	751137 92	751186 774	751182 874	751190 066
i actor izatio	Actual Easting	2084246 91	2084212 01	2084297 27	2084261 43	2084225 81	2084190 14	2084154 33	2084311 76	2084275 82	2084255 123
•	Proposed Northing	751116 957	751112 988	751153 898	751149 929	751145 960	751141 990	751138 021	751186 870	751182 900	751178 931
on duois ceru	Proposed Easting	2084246 973	2084211 193	2084297 207	2084261 426	2084225 646	2084189 865	2084154 085	2084311 659	2084275 879	2084240 098
	Location Code	CH48 009	CH48-010	CH48-011	CH48-012	CH48-013	CH48-014	CH48-015	CH49 000	CH49 001	CH49-002
	IHSS/PAC/UBC Site										

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

Comment	Relocated approximately 10 feet south because of proximity to utilities	No significant difference	No significant difference	No significant difference	No significant difference	Relocated because onginal location under conex	No significant difference	No significant difference	No significant difference	No significant difference	Relocated approximately ten feet to the northeast, original location under connex	No significant difference	No significant difference	No significant difference	No significant difference	Radionuclides Relocated approximately 4 feet to the Metals northeast because of underground utilities	No sign	No significant difference
Analyte	Radionuclides Metals SVOCs PCBs	Radionuclides Metals SVOCs PCBs	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals
Depth Interval	0-0 2,	0-0 5	0-0 5'	0-0 2.	.S 0-0	.5 0-0	S 0-0	.5 0-0	.S 0-0	.5 0-0	.5 0-0	.5 0-0	0-0 5'	0-0 5'	.5 0-0	.5 0-0	,5 0-0	.50-0
Media	Surface Soil	Surface Soil	Surface Sorl	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Actual Northing	751164 908	751207 841	751148 925	751181 97	751144 933	751168 089	751210 967	751173 715	751206 724	751169 396	751210 142	751164 972	751198 358	751161 121	751194 007	751160 778	751189 756	751185 588
Actual Easting	2084206 55	2084218 87	2083638 88	2083624 42	2083674 709	2083650 888	2083646 3	2083696 24	2083682 02	2083732 18	2083720 658	2083767 89	2083753 47	2083803 55	2083789 14	2083840 368	2083825 105	2083860 692
Proposed Northing	751174 962	751207 933	751148 995	751182 058	751144 796	751177 859	751210 923	751173 660	751206 724	751169 461	751202 525	751165 262	751198 326	751161 063	751194 127	751156 864	751189 928	751185 729
<b>Proposed</b> <b>Easting</b>	2084204 318	2084218 771	2083638 997	2083624 756	2083674 751	2083660 510	2083646 270	2083696 265	2083682 024	2083732 019	2083717 778	2083767 773	2083753 533	2083803 528	2083789 287	2083839 282	2083825 041	2083860 795
Location Code	CH49-003	CH49-004	CE48-020	CE49-001	CE48-021	CE49-002	CE49-003	CE49-004	CE49-005	CE49-006	CE49-007	CF49-000	CF49-001	CF48-014	CF49-002	CF48-015	CF49-003	CF49-004
IHSS/PAC/UBC Site			700 150 1 Radioactive Site North of Building 771															

Table 2
IHSS Group 700-4 Characterization Sampling Specifications and Deviations

Comment	No significant difference	Radionuclides Relocated approximately 7 feet to the Metals west, original location under building		s No significant difference	No significant difference	New location between T771A and T771N	New location between T771A and T771N	New location between T771A and T771A	s No significant difference	s No significant difference	Relocated approximately 50 feet north, original location under CCA trailer HSS moved	Relocated north, orig	Relocated north ong	Relocated north , orig	Relocated north orig
Analyte	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides Metals	Radionuclides	Radionuclides	Radionuclides	Radionuclides Metals	Radionuclides Metals	Radionuclides	Radionuclides	Radionuclides	Radionuclides	Radionuclides
Depth Interval	0-05/	0-0 5'	0-0 5'	0-0 5.	0-0 5'	0-10 5'	0-10 5'	0-10 5'	.5 0-0	.5 0-0	0-0 2,	0 5-2 5'	0-0 2,	0 5-10 5'	0-0 3.
Media	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface and Subsurface Soil	Surface and Subsurface Soil	Surface and Subsurface Soil	Surface Soil	Surface Soil	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil	Surface Soil
Actual Northing	751181 495	751218 148	751177 223	751210 291	751243 42	751225 89	751215 32	751266 52	751173 028	751206 161	751305 176	751305 176	751304 939	751304 939	751286 076
Actual Fasting	2083896 613	2083875 213	2083932 293	2083918 682	2083903 515	2083812 46	2083817 07	2083819 07	2083967 92	2083953 892	2083831 387	2083831 387	2083853 434	2083853 434	2083853 422
Proposed Northing	751181 530	751214 593	751177 331	751210 394	751243 458				751173 132	751206 195	751253 869	751253 869	751255 171	751255 171	751233 052
Proposed Fasting	2083896 550	2083882 309	2083932 304	2083918 063	2083903 823				2083968 058	2083953 818	2083812 847	2083812 847	2083851 879	2083851 879	2083853 181
<b>Location</b> Code	CF49 005	CF49-006	CF49-007	CF49-008	CF49 009	CF49-018	CF49-019	CF49-020	CG49-000	CG49-001	CF49-012	CF49-012	CF49-013	CF49-013	CF49-014
IHSS/PAC/UBC Site											700-163 2 - Radioactive Site 700 Area 3 Americium (Am) Slab				

ER RSOP Notification and Closeout Report IHSS Group 700-4

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

	Comment	Relocated approximately 50 feet north original location under CCA trailer IHSS moved	Relocated approximately 50 feet north, original location under CCA trailer HSS moved	Relocated approximately 50 feet north, original location under CCA trailer IHSS moved	Relocated north , ong	Relocated approximately 50 feet north original location under CCA trailer IHSS moved	No si	No significant difference	Relocated because of proximity to underground utilities	No significant difference	No significant difference	No significant difference	No significant difference
	Analyte	Radionuclides	Radionuclides	Radionuclides	Radionuclides	Radionuclides	Radionuclides Metals Nitrate	Radionuclides Metals Nitrate	Radionuchdes Metals SVOCs	Radionuclides Metals SVOCs	Radionuclides Metals VOCs	Radionuclides Metals VOCs	Radionuclides Metals VOCs
Doneh	Deptu Interval	0 5-10 5'	0-0 2,	0 5-10 5	.5 0-0	0 5-10 5'	.5 0-0	0 5-2 5'	.5 0-0	.5 0-0	0 5-2 5'	0 5-2 5'	0 5-2 5'
Possed Active Active	Media	Subsurface Soil	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil	Surface Soil	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil
Action	Northing	751286 076	751285 175	751285 175	751295 677	751295 677	751119 415	751119 415	750802 462	750788 07	751018 377	751017 273	751016 607
Actual	Actual Easting	2083853 422	2083831 756	2083831 756	2083842 564	2083842 564	2084126 519	2084126 519	2083896 08	2083914 33	2083924 677	2083956 548	2084026 765
Dronogod	Northing	751233 052	751233 052	751233 052	751240 858	751240 858	751119 857	751119 857	750802 389	750788 077	751018 267	751017 434	751016 602
Departed	r roposeu Easting	2083853 181	2083812 847	2083812 847	2083833 664	2083833 664	2084126 411	2084126 411	2083896 117	2083914 332	2083924 220	2083956 696	2084026 643
Location	Code	CF49-014	CF49-015	CF49-015	CF49-016	CF49-016	CG48-015	CG48-015	CF47-006	CF47-007	CF48-017	CG48-016	CG48-017
THECADACATRC	Site						700-139 1(N)(b) - Hydroxide Tank KOH, NaOH Condensate		IHSS 139 2 - Caustic/Acid Spills Hydrofluoric Tank		700-150 3 – Radioactive Site Between Buildings 771 and 774		

IHSS Group 700-4 Characterization Sampling Specifications and Deviations Table 2

		•							
IHSS/PAC/UBC   Location   Proposed	Location	Proposed	Proposed	Actual	Actual	Modio	Depth	Amoluto	Commont
Site	Code	Easting	Northing	Easting	Northing	Media	Interval	Alialyte	Comment
	CG48 018		751049 910	2084064 95	751049 91	Subsurface Soil	0 5-2 5'	Radionuclides Metals VOCs	No significant difference
IHSS 149 1 (Solar Evaporation Ponds)	CH48-020D	2084187 354	751051 575	2084187 54	751051 722	Subsurface Soil	45-65'	Radionuclides Metals Nitrate	No significant difference
	CH48-021D	2084253 970	751015 769	2084253 99	75101576	Subsurface Soil	4 5-6 5'	Radionuclides Metals Nitrate	No significant difference
Pipe at Maintenance Shop	CE48-027			2083566 34	751065 23	Subsurface Soil	.50-0	Radionuclides Metals VOCs	Sample location added because building personnel identified issue Location determined by building personnel Depth interval measured from beneath building
	CE48 028			2083538 06	751064 32	Surface Soil	9-0-0	Radionuclides Metals VOCs	Sample location added because building personnel identified issue Location determined by building personnel
¥ .									

Am - Americium
AST - above ground storage tank
CCA - Configuration
PCB- polychlorinated biphenyl

OPWL – Original Process Waste Line SVOC- semivolatile organic compound VOC – volatile organic compound

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	mg/kg	pC1/g	pC1/g	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg
Ecological AL	NA	NA	1800	1600	433	•	•	216	•	•	-		•	_	25 6	_	_	•	•	•	678
WRW AL	26400	40900	300	351	7150	204000000	409	22 2	26400	1970000	268	40900	27200000	307000	1000	3480	20400	22100000	613000	613000	2750
Depth End	\$0	50	0.5	0.5		0.5	0.5	0.5	0.5	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	0.0	00	00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	00	0.0	00	00	0.0	00
Background Mean + 2 SD	141 260	18 060	2 000	2 000	45 59	•	0.47	10 09	141 26	_	16 99	18 06	•	18037	54.62	365 08	14 91	•	48 94	2.9	5 98
Detection Limit	000 86	4 000	I 470	1 470	31 00	99	7	5	86	71	20	4	39	2190	7	158	12	56	20	4	533
Result	643 000	85 500	2 300	2 300	138	190	10	178	1030	75	29 7	133	180	48600	47.7	707	43.2	250	297	969	12 474
Analyte	Barum	Copper	Uranum-234	Uranıum-238	Vanadıum	Anthracene	Antimony	Arsenic	Barıum	bıs(2- Ethylhexyl)phthalate	Chromium	Copper	Fluoranthene	Iron	Lead	Manganese	Nickel	Pyrene	Strontium	Tın	Uranium, Total
Actual Northing	750861 638	750861 638	750861 638	750861 638	750861 638	751156 268	751156 268	751156 268	751156 268	751156 268	751156 268	751156 268	751156 268	751156 268	751156.268	751156 268	751156 268	751156 268	751156 268	751156 268	751156 268
Actual Easting	2083724 010	2083724 010	2083724 010	2083724 010	2083724 010	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525	2083872 525
Location	CE47-000	CE47-000	CE47-000	CE47-000	CE47-000	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008	CF48-008
IHSS/PAC/ UBC Site	UBC 771 – Plutonium and Americium Recovery Operation	(All depths start below building slab)																			

ER RSOP Notification and Closeout Report IHSS Group 700-4

Table 3

its	Units	mg/kg	$pCV_{R}$	pCı/g	mg/kg	pCu/g	pC1/g	pCı/g	mg/kg	pCu/g	pC1/g	pC <sub>1</sub> /g	mg/kg																
ction Lim	Ecological AL	8 29	1800	1600	ŧ	216	NA	NA	NA	NA	NA	NA	1800	1900	1600	433	NA	21 6	NA	1800	1900	1600	433						
s or Dete	WRW AL	2750	300	351	307000	22.2	26400	268	40900	307000	20400	613000	300	∞	351	7150	307000	22.2	26400	268	40900	307000	3480	20400	613000	300	8	351	7150
eviation	Depth End	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard De	Depth Start	00	00	00	0.0	00	00	00	0.0	0.0	0.0	0.0	00	00	0.0	0.0	0.0	00	00	00	00	00	00	0.0	0.0	00	00	0.0	00
Two Stanc	Background Mean + 2 SD	5 98	2 253	2	3	10 090	141 260	16 990	18 060	18037 000	14 910	48 940	2 253	0 094	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	2 253	0 094	2 000	45 590
leans Plus	Detection Limit	5 2866	1 796528	1 796528	6	5 00	00 86	20 00	4 00	2190 00	12 00	20 00	131	0 20	131	31 00	006	2 00	00 86	20 00	4 00	2190 00	158 00	12 00	20 00	163	0 11	1 63	31 00
kground M	Result	12 474	42	4.2	262	12 50	00 689	28 90	57 50	25200 00	34 40	112 00	6 20	0 44	6 20	129 00	96 20	11 60	00 089	28 80	102 00	39100 00	579 00	52 70	203 00	2 90	0 30	2 90	164 00
s Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Uranium, Total	Uranium-234	Uranıum-238	Zinc	Arsenic	Barıum	Chromium	Copper	Iron	Nickel	Strontium	Uranum-234	Uranıum-235	Uranium-238	Vanadium	Zinc	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranum-234	Uranıum-235	Uranium-238	Vanadıum
IHSS Group 700-4 Characterization Results	Actual Northing	751156 268	751156 268	751156 268	751156 268	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750871 216	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227
Characteriz	Actual Easting	2083872 525	2083872 525	2083872 525	2083872 525	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083652 650	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	CE47-002 2083696 625
oup 700-4	Location Code	CF48-008	CF48-008	CF48-008	CF48-008	CE47-001	CE47-002	CE47-002																					
IHSS Gr	IHSS/PAC/ UBC Site			<b>Name</b>																									

Ü Ē Table 3 Ę ζ THEE C.

<u> </u>	Units	mg/kg	mg/kg	mg/kg	pCu/g	pC1/g	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	pCu/g	pC1/g	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	pCv/g	pC1/g
Ecological	ΑĽ	NA	NA	NA	1800	1900	1600	433	21 6	NA	NA	433	NA	NA	NA	1800	1600	433	216	NA	NA	NA	1900	433	216	NA	NA	1800	1600
	WRW AL	307000	26400	40900	300	8	351	7150	22 2	26400	40900	7150	16400000	26400	40900	300	351	7150	22.2	26400	307000000	40900	8	7150	22.2	26400	40900	300	351
Depth	End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth	Start	0.0	0.0	00	00	0.0	00	00	0.0	00	00	0.0	00	00	00	00	0.0	00	00	00	00	0 0	0.0	00	00	00	00	00	00
Background	Mean +2SD	73 760	141 260	18 060	2 253	0 094	2 000	45 590	10 090	141 260	18 060	45 590	NA	141 260	18 060	2 253	2 000	45 590	10 090	141 260	NA	18 060	0 094	45 590	10 090	141 260	18 060	2 253	2 000
Detection	Limit	00 6	08 00	4 00	137	0 15	1 37	31 00	5 00	98 00	4 00	31 00	49 00	98 00	4 00	0 97	0 97	31 00	5 00	98 00	94 00	4 00	0 10	31 00	5 00	98 00	4 00	1 02	1 02
1	Result	108 00	748 00	09 09	3 30	0 19	3 30	125 00	13 80	00 899	105 00	129 00	00 <i>LL</i>	691 00	00 19	2 30	2 30	133 00	17 00	00 999	260 00	98 00	0 26	152 00	17 90	00 089	181 00	4 60	4 60
	Analyte	Zinc	Barıum	Copper	Uranium-234	Uranium-235	Uranıum-238	Vanadium	Arsenic	Barıum	Copper	Vanadıum	4-Methyl-2-pentanone	Barium	Copper	Uranium-234	Uranıum-238	Vanadıum	Arsenic	Barıum	Benzyl Alcohol	Copper	Uranıum-235	Vanadıum	Arsenic	Barıum	Copper	Uransum-234	Uranıum-238
Actual	Northing	750928 227	750994 815	750994 815	750994 815	750994 815	750994 815	750994 815	751051 826	751051 826	751051 826	751051 826	751061 404	751061 404	751061 404	751061 404	751061 404	751061 404	750852 059	750852 059	750852 059	750852 059	750852 059	750852 059	750899 491	750899 491	750899 491	750899 491	750899 491
Actual	Easting	2083696 625	2083669 240	2083669 240	2083669 240	2083669 240	2083669 240	2083669 240	2083713 215	2083713 215	2083713 215	2083713 215	2083641 855	2083641 855	2083641 855	2083641 855	2083641 855	2083641 855	2083795 370	2083795 370	2083795 370	2083795 370	2083795 370	2083795 370	2083910 705	2083910 705	2083910 705	2083910 705	2083910 705
Location	Code	CE47-002	CE48-000	CE48-000	CE48-000	CE48-000	CE48-000	CE48-000	CE48-002	CE48-002	CE48-002	CE48-002	CE48-003	CE48-003	CE48-003	CE48-003	CE48-003	CE48-003	CF47-000	CF47-000	CF47-000	CF47-000	CF47-000	CF47-000	CF47-001	CF47-001	CF47-001	CF47-001	CF47-001
IHSS/PAC/	UBC Site																												

Table 3

its	Units	mg/kg	mg/kg	mg/kg	$pCV_{\mathcal{B}}$	pC1/g	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCı/g	mg/kg	pCv/g									
ction Lim	Ecological AL	433	NA	NA	1800	1600	433	21 6	NA	NA	NA	NA A	NA	NA	NA	NA	NA	1900	433	NA	216	NA	1800						
s or Dete	WRW AL	7150	26400	40900	300	351	7150	22.2	26400	307000000	147000000	268	40900	307000	3480	20400	613000	8	7150	307000	22 2	26400	268	40900	307000	3480	20400	613000	300
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard D	Depth Start	00	00	00	00	00	0.0	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Two Stand	Background Mean + 2 SD	45 590	141 260	18 060	2 253	2 000	45 590	10 090	141 260	NA	NA	16 990	18 060	18037 000	365 080	14 910	48 940	0 094	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	2 253
leans Plus	Detection Limit	31 00	00 86	4 00	I 23	1 23	31 00	2 00	00 86	00 68	00 69	20 00	4 00	2190 00	158 00	12 00	20 00	0 16	31 00	00 6	2 00	08 00	20 00	4 00	2190 00	158 00	12 00	20 00	1 96
kground M	Result	162 00	286 00	78 60	3 20	3 20	111 00	15 30	90 099	520 00	120 00	38 20	107 00	39900 00	618 00	51 30	199 00	0 19	123 00	117 00	11 700	00 099	24 70	71 50	31500 00	409 00	43 30	187 00	510
s Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Vanadıum	Barıum	Copper	Uranium-234	Uranium-238	Vanadıum	Arsenic	Barıum	Benzyl Alcohol	Butylbenzylphthalate	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranium-235	Vanadıum	Zinc	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranium-234
IHSS Group 700-4 Characterization Results	Actual Northing	750899 491	750909 070	750909 070	750909 070	750909 070	750909 070	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750918 648	750966 080	750966 080	750966 080	750966 080	750966 080	750966 080		750966 080	750966 080
Characteriz	Actual Easting	2083910 705	2083839 345	2083839 345	2083839 345	2083839 345	2083839 345	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083767 985	2083883 320	2083883 320	2083883 320	2083883 320	2083883 320	2083883 320	2083883 320	2083883 320	2083883 320
oup 700-4	Location Code	CF47-001	CF47-002	CF47-002	CF47-002	CF47-002	CF47-002	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF47-003	CF48-000								
IHSS Gr	IHSS/PAC/ UBC Site																												

ER RSOP Notification and Closeout Report IHSS Group 700-4

Table 3

its	Units	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCu/g	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ction Lim	Ecological AL	1600	433	NA	21 6	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800	1600	433	NA	216	NA	NA	AN
s or Dete	WRW AL	351	7150	307000	22.2	26400	34900	3490	34900	349000	307000000	268	3490000	40900	27200000	34900	307000	3480	20400	22100000	613000	300	351	7150	307000	22.2	26400	268	40900
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard D	Depth Start	0.0	00	00	0.0	0 0	00	0 0	0.0	0 0	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
s Two Stan	Background Mean + 2 SD	2 000	45 590	73 760	10 090	141 260	NA	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	18037 000	365 080	14 910	NA	48 940	2 253	2 000	45 590	73 760	10 090	141 260	16 990	18 060
leans Plu	Detection Limit	1 96	31 00	9 00	5 00	00 86	42 00	55 00	68 00	73 00	88 00	20 00	36 00	4 00	42 00	47 00	2190 00	158 00	12 00	60 00	20 00	1 88	1 88	31 00	9 00	5 00	98 00	20 00	4 00
kground M	Result	5 10	136 00	172 00	17 40	718 00	100 00	100 00	00 86	00 06	140 00	35 40	130 00	112 00	250 00	54 00	32200 00	206 00	44 10	220 00	187 00	3 20	3 20	135 00	109 00	18 00	621 00	37 70	83 70
s Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Uranıum-238	Vanadıum	Zınc	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzyl Alcohol	Chromium	Chrysene	Copper	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranum-234	Uranium-238	Vanadıum	Zinc	Arsenic	Barıum	Chromium	Copper
IHSS Group 700-4 Characterization Results	Actual Northing	750966 080	750966 080	750966 080	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751032 669	751042 247	751042 247	751042 247	751042 247
Characteriz	Actual Easting	2083883 320	2083883 320	2083883 320	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083855 935	2083784 575	2083784 575	2083784 575	2083784 575
roup 700-4	Location	CF48-000	CF48-000	CF48-000	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003		CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-003	CF48-004	CF48-004	CF48-004	CF48-004
IHSS G	IHSS/PAC/ UBC Site																			<b></b>									

Table 3

its	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCvg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCVR	mg/kg	mg/kg	mg/kg	pC1/g	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCu/g
ction Lim	Ecological AL	NA	NA	NA	NA	433	NA	1900	216	NA	NA	NA	NA	NA	NA	3800	NA	433	NA	1900	216	NA	NA	NA	NA	NA	NA	NA	3800
is or Dete	WRW AL	307000	3480	20400	613000	7150	307000	76	22 2	26400	268	40900	307000	3480	20400	50	613000	7150	307000	92	22 2	26400	307000000	268	40900	307000	3480	20400	20/116
eviatior	Depth End	0.5	50	0.5	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05
dard D	Depth Start	00	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	00	00	0.0	0.0	0.0	0.0	00	00	00	0.0	0.0	0.0	00	00
s Two Stand	Background Mean + 2 SD	18037 000	365 080	14 910	48 940	45 590	73 760	0 023	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	9900	48 940	45 590	73 760	0 023	10 090	141 260	NA	16 990	18 060	18037 000	365 080	14 910	9900
feans Plu	Detection Limit	2190 00	158 00	12 00	20 00	31 00	00 6	0.57	2 00	08 00	20 00	4 00	2190 00	158 00	12 00	0 57	20 00	31 00	00 6	0.51	2 00	00 86	89 00	20 00	4 00	2190 00	158 00	12 00	051
kground M	Result	33100 00	455 00	47 80	181 00	09 66	89 20	1 00	11 60	612 00	38 70	291 00	31900 00	412 00	42 30	11 32	338 00	127 00	353 00	0.77	13 40	762 00	160 00	24 90	93 70	33100 00	268 00	46 40	9 46
ts Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Iron	Manganese	Nickel	Strontium	Vanadıum	Zinc	Americium-241	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Plutonium-239/240	Strontium	Vanadıum	Zinc	Americium-241	Arsenic	Вагит	Benzyl Alcohol	Chromium	Copper	Iron	Manganese	Nickel	Plutonium-239/240
IHSS Group 700-4 Characterization Results	Actual Northing	751042 247	751042 247	751042 247	751042 247	- 1	- 1	$\neg T$	- 1	- 1		- 1	751089 679	- 1	- 1	751089 679		П		751099 258	- 1	$\neg$	Т		751099 258	- 1		751099 258	751099 258
Characteriz	Actual Easting	2083784 575	2083784 575	2083784 575	2083784 575	2083784 575	2083784 575	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083899 910	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550
roup 700-4	Location	CF48-004	$\neg \tau$		-1	CF48-004	$\neg$			$\overline{}$	$\neg$	$\neg$	_	_		CF48-005		$\neg$		$\neg$	_	$\neg$	$\neg$	_	$\overline{}$	$\neg$	$\neg$		CF48-006
IHSS G	IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	mg/kg	pCv/g	pCv/g	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	pCv/g	pC1/g	pC1/g	mg/kg		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg
Ecological AL	NA	1800	1600	433	NA	NA	NA	NA	1800	1900	1600	NA	00000	20000	25700	1010000	1010000	NA	NA	NA	NA	NA	1800	1900	1600	433	•
WRW AL	613000	300	351	7150	307000	204000000	27200000	22100000	300	8	351	26400	00070	34900	3490	34900	349000	3490000	40900	27200000	22100000	613000	300	8	351	7150	409
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	50	50	50	ž (	cn	0.5	0.5	50	0.5	0.5	0.5	0.5	50	0.5	0.5	0.5	0.5	0.5
Depth Start	00	00	00	00	0.0	0.0	0.0	0.0	00	0.0	0.0	00	Ó	00	0.0	0.0	0.0	0.0	0.0	00	0.0	00	00	0.0	00	0.0	0
Background Mean + 2 SD	48 940	2 253	2 000	45 590	73 760	NA	NA	NA	2 253	0 094	2 000	141 260		NA	NA	NA	NA	NA	18 060	NA	NA	48 940	2 253	0 094	2 000	45 590	0.47
Detection Limit	20 00	1 66	1 66	31 00	00 6	72 00	43 00	62 00	140	0 14	1 40	00 86	00	4100	54 00	00 99	72 00	36 00	4 00	41 00	29 00	20 00	124	0 10	1 24	31 00	7 00
Result	216 00	3 80	3 80	119 00	96 30	220 00	220 00	290 00	480	0 18	4 80	785 00	00 00+	120 00	100 00	87 00	87 00	140 00	139 00	240 00	240 00	216 00	044	0.20	4 40	90 50	12.7
Analyte	Strontium	Uranum-234	Uranium-238	Vanadıum	Zinc	Anthracene	Fluoranthene	Pyrene	Uranum-234	Uranıum-235	Uranium-238	Barium		Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Copper	Fluoranthene	Pyrene	Strontium	Uranium-234	Uranium-235	Uranıum-238	Vanadıum	Antimony
Actual Northing	751099 258	751099 258	751099 258	751099 258	751099 258	751108 836	751108 836	751108 836	751108 836	751108 836	751108 836	751060 944		/21000 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751060 944	751070 523
Actual Easting	2083828 550	2083828 550	2083828 550	2083828 550	2083828 550	2083757 190	2083757 190	2083757 190	2083757 190	2083757 190	2083757 190	2084113 990	000	2084113990	2084113 990	2084113 990	2084113 990	2084113 990	2084113 990	2084113 990	2084113 990	2084113 990	2084113 990	CG48-000 2084113 990	CG48-000 2084113 990	2084113 990	2084042 630
Location	CF48-006	CF48-006	CF48-006	CF48-006	CF48-006	CF48-007	CF48-007	CF48-007	CF48-007	CF48-007	CF48-007	CG48-000		CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-000	CG48-001
IHSS/PAC/ UBC Site		- <b></b>										UBC 774 -	Liquid Process Waste	I reatment	(All depths start below	building slab)											

its	Units	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	pCı/g	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg
ction Lim	Ecological AL	216	*	800000	1	1	-	•	-	1	•	1	ŧ	1900	433		NA	NA	NA	216	NA	800000	25700	1010000	1010000	NA	NA	NA	NA
is or Dete	WRW AL	22 2	26400	34900	268	3490000	40900	27200000	307000	20400	22100000	613000	613000	<b>∞</b>	7150	307000	20400000	40800000	204000000	22.2	26400	34900	3490	34900	349000	3490000	40900	3490	2950000
viatior	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ard De	Depth Start	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	00	0.0	00	00	00	00	00	0.0	00	00	00	0.0
Two Stand	Background Mean + 2 SD	10 09	141 26	•	16 99	-	18 06		18037	14 91	•	48 94	2.9	0 0939	45 59	73.76	NA	NA	NA	10 090	141 260	NA	NA	NA	NA	NA	18 060	ΝΑ	NA
eans Plus	Detection Limit	2 00	00 86	42 00	20 00	36 00	4 00	42 00	2190 00	12 00	00 09	20 00	4 00	0 12	31 00	006	39 00	50 00	73 00	2 00	08 00	44 00	57 00	70 00	26 00	38 00	4 00	00 69	26 00
ackground M	Result	119	661	69	353	99	749	140	31800	42.3	140	165	5 03	0 23	102	104	42 00	210 00	200 00	14 60	00 809	460 00	440 00	360 00	430 00	280 00	101 00	120 00	97 00
eater Than B	Analyte	Arsenic	Barıum	Benzo(a)anthracene	Chromium	Chrysene	Copper	Fluoranthene	Iron	Nickel	Pyrene	Strontium	Tın	Uranıum-235	Vanadıum	Zinc	2-Methylnaphthalene	Acenaphthene	Anthracene	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Copper	Dibenz(a,h)anthracene	Dibenzofuran
ation Result	Actual Northing	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751070 523	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168
IHSS Group 700-4 Characterization Results Gr	Actual Easting	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084042 630	2084068 182	2084068 182	2084068 182	2084068 182	CG48-020 2084068 182	2084068 182	2084068 182	2084068 182	CG48-020 2084068 182	2084068 182	2084068 182	2084068 182	CG48-020 2084068 182
oup 700-4	Location	CG48-001	CG48-001	CG48-001	CG48-001		CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-001	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020
IHSS Gr	IHSS/PAC/ UBC Site		4	1	•	•	<u> </u>					•	•	•	•		•	-	•				- :						

ER RSOP Notification and Closeout Report IHSS Group 700-4

its	Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	$pCV_g$	pC1/g	pC1/g	mg/kg	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCVg	mg/kg	pCv8	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ction Limi	Ecological AL	NA	NA	NA	NA	NA	1800	1900	1600	433	0061	216	NA	NA	NA	NA	NA	NA	3800	NA	1800	1600	433	NA	NA	NA	NA
ns or Dete	WRW AL	27200000	40800000	34900	3090000	22100000	300	8	351	7150	92	22.2	26400	268	40900	307000	3480	20400	911/05	613000	300	351	7150	307000	26400	268	40900
viatio	Depth End	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard De	Depth Start	0.0	00	00	0.0	00	00	00	0.0	0.0	00	00	0.0	00	0.0	0.0	0.0	0.0	00	0.0	00	0.0	0.0	00	00	00	00
s Two Stand	Background Mean + 2 SD	NA	NA	NA	NA	NA	2 000	0 094	2 000	45 590	0 023	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	9900	48 940	2.3	2 000	45 590	73 760	141 260	16 990	18 060
leans Plu	Detection Limit	44 00	00 09	49 00	47 00	63 00	I S I	0 13	151	31 00	<i>LL</i> 0	2 00	00 86	20 00	4 00	2190 00	158 00	12 00	0 77	20 00	I 59	1 59	31 00	00 6	08 00	20 00	4 00
Table 3 ckground M	Result	1400 00	170 00	240 00	120 00	1300 00	7 90	0 24	2 90	123 00	09 9	12 10	616 00	40 50	53 60	37300 00	00 509	42 80	56 57	183 00	2 40	2 40	143 00	06 98	489 00	51 40	72 60
eater Than Ba	Analyte	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Pyrene	Uranium-234	Uranium-235	Uranıum-238	Vanadıum	Americium-241	Arsenic	Barnum	Chromium	Copper	Iron	Manganese	Nickel	Plutonum-239/240	Strontium	Uranium-234	Uranıum-238	Vanadıum	Zinc	Barıum	Chromium	Copper
IHSS Group 700-4 Characterization Results Gr	Actual Northing	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	751120 168	750923 295		750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750923 295	750918 963	750918 963	750918 963
Characteriz	Actual Easting	2084068 182	CG48-020 2084068 182	CG48-020 2084068 182	2084068 182	2084068 182	CG48-020 2084068 182	CG48-020 2084068 182	2084068 182	2084068 182	2083722 762	2083722 762	2083722 762	2083722 762	2083722 762	2083722 762	2083722 762	CE47-003 2083722 762	CE47-003   2083722 762	2083722 762	2083722 762	2083722 762	CE47-003 2083722 762	2083722 762	2083675 837	2083675 837	2083675 837
oup 700-4	Location	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CG48-020	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003	CE47-003		CE47-003	CE47-003	CE47-004	CE47-004	CE47-004
IHSS G	IHSS/PAC/ UBC Site										Building Sumps	(All depths start below	building slab)														

Table 3

Units	mg/kg	mg/kg	mg/kg	pCu/g	pCı/g	pC1/g	mg/kg	mg/kg	mg/kg	pCv8	pCı/g	pC1/g	mg/kg	mg/kg	ug/kg	mg/kg	pCv/g	pCı/g	pCı/g	mg/kg	mg/kg	mg/kg	pCv/g	pCı/g	mg/kg	$pCV_{\mathcal{R}}$	pCı/g	10/م
Ecological AL	NA	NA	NA	0081	1900	1600	433	NA	NA	1800	1900	1600	433	NA	NA	NA	1800	1900	1600	433	NA	NA	1800	1600	433	1800	1900	1500
WRW AL	307000	20400	613000	300	8	351	7150	26400	40900	300	8	351	7150	26400	307000000	40900	300	8	351	7150	26400	40900	300	351	7150	300	8	120
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	65	65	77
Depth Start	0.0	0.0	0.0	00	0.0	0.0	00	00	0.0	00	0.0	00	00	0.0	00	0.0	00	00	00	00	00	00	00	0.0	00	45	4.5	
Background Mean + 2 SD	18037 000	14 910	48 940	2.3	0 094	2 000	45 590	141 260	18 060	23	0 094	2 000	45 590	141 260	NA	18 060	23	0 094	2 000	45 590	141 260	18 060	23	2 000	45 590	26	0 12	
Detection Limit	2190 00	12 00	20 00	I 20	600	1 20	31 00	00 86	4 00	127	0 11	1 27	31 00	00 86	88 00	4 00	141	0 11	141	31 00	00 86	4 00	1 67	1 67	31 00	1 380	0600	
Result	21300 00	26 30	126 00	4 70	0 13	4 70	164 00	595 00	74 20	4 60	0 27	4 60	169 00	00 999	1600 00	79 80	4 80	0.25	4 80	161 00	266 00	70 60	2 80	2 80	107 00	3 059	0 171	0.000
Analyte	Iron	Nickel	Strontium	Uranium-234	Urantum-235	Uranıum-238	Vanadıum	Barnum	Copper	Uranium-234	Uranium-235	Uranium-238	Vanadıum	Barıum	Benzyl Alcohol	Copper	Uranium-234	Uranıum-235	Uranium-238	Vanadıum	Barnum	Copper	Uranium-234	Uranıum-238	Vanadıum	751172 2400 Uranum-234	751172 2400 Uranium-235	
Actual Northing	750918 963	750918 963	750918 963	750918 963	750918 963	750918 963	750918 963	750921 129	750921 129	750921 129	750921 129	750921 129	750921 129		750966 610	750966 610	750966 610	750966 610	750966 610	750966 610	750986 102	750986 102	750986 102	750986 102	750986 102	751172 2400	751172 2400	
Actual Easting	2083675 837	2083675 837	2083675 837	2083675 837	2083675 837	2083675 837	2083675 837	2083639 019	2083639 019	2083639 019	2083639 019	2083639 019	2083639 019	115 8598 211	2083658 511	2083658 511	2083658 511	2083658 511	2083658 511	2083658 511	2083683 056	2083683 056	2083683 056	2083683 056	2083683 056	2083598 842	2083598 842	
Location Code	CE47-004	CE47-009	CE47-009	CE47-009	CE47-009	CE47-009	CE47-009	CE48-006	CE48-006	CE48-006	CE48-006	CE48-006	CE48-006	CE48-006	CE48-007	CE48-007	CE48-007	CE48-007	CE48-007	CE49-012	CE49-012							
IHSS/PAC/ UBC Site																												

ER RSOP Notification and Closeout Report IHSS Group 700-4

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Actual Northing		Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL
750890 086 Arse	SS	ınıc	17 00	2 00	10 090	0.0	0.5	22.2	216
750890 086 Barıum	arıı	ım	1010 00	00 86	141 260	00	0.5	26400	NA
750890 086 Copper	obb	er.	85 10	4 00	18 060	00	0.5	40900	NA
750890 086 Uran	Iran	Uranum-234	5 30	137	23	00	05	300	1800
750890 086 Uran	Iran	Uranıum-235	0 29	0.11	0 094	0.0	0.5	8	1900
750890 086 Uran	Jran	Uranıum-238	5 30	1 37	2 000	0.0	0.5	351	1600
750890 086 Vanadıum	'ana	dıum	117 00	31 00	45 590	00	0.5	7150	433
750974 551 Barıum	arın	m	999	00 86	141 260	0.0	0.5	26400	NA
750974 551 Copper	do.	er.	42 20	4 00	18 060	00	0.5	40900	NA
750974 551 Di-n-l	1-1-	Di-n-butylphthalate	75 00	70 00	NA	00	0.5	73700000	NA
750974 551 Urani	Iranı	Uranıum-235	0 24	0 12	0 094	00	0.5	8	1900
750974 551 Vanadıum	/anac	hum	157 00	31 00	45 590	00	0.5	7150	433
750974 5510 Uranum, Total	Iran	um, Total	16 04	979	3 04	10	2.5	2750	8 29
750974 5510 Urani	Iran	Uranum-234	5 400	211	26	10	2.5	300	1800
750974 551 Urani	Jranı	Uranıum-235	0 24	0 14	0 094	1.0	2.5	<b>∞</b>	1900
750974 5510 Uranium-238	Jranii	um-238	5 400	2 11	1 49	10	2.5	351	1600
750974 5510 Uranum, Total	ran	um, Total	10 99	919	3 04	2.5	4.5	2750	678
750974 5510 Uran	Iran	Uranium-234	3.7	2 07	26	2.5	45	300	1800
750974 551 Urani	Jrani	num-235	0 34	0 13	0 094	2.5	4.5	<b>∞</b>	1900
750974 5510 Uranium-238	Irani	um-238	3.7	2 07	1 49	2.5	4.5	351	1600
750966 610 Barıum	E	E	651 00	98 00	141 260	00	0.5	26400	NA
750966 610 Chromium	hron	nıum	106 00	20 00	16 990	00	0.5	268	NA
750966 610 Copper	obbe	x	97 50	4 00	18 060	0.0	0.5	40900	NA
750966 610 Uranu	/ranu	Uranum-234	3 40	177	23	00	05	300	1800
750966 610 Urani	Jrani	Uranium-235	0 14	0 11	0 094	00	0.5	∞	1900
750966 610 Urar	Jran	nıum-238	3 40	177	2 000	00	0.5	351	1600
750966 610 Van	됩	Vanadıum	180 00	31 00	45 590	00	0.5	7150	433
750975 659 4-Me	1	ethyl-2-pentanone	6	52	•	×	1	1640000	

ER RSOP Notification and Closeout Report IHSS Group 700-4

ıts	Units	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	pC1/g	pC1/g	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	pC1/g	pCı/g	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	pCv/g	pC1/g	pC1/g	mg/kg	ug/kg	mg/kg	ug/kg
ction Lim	Ecological AL	211000	•	-	-	25.6	8 29	1900	1600	433	•	-	-	25 6	8 29	1900	1600	433	•	NA	NA	NA	1800	1900	1600	433	NA	NA	NA
eater Than Background Means Plus Two Standard Deviations or Detection Limits	WRW AL	102000000	26400	40900	4250000	1000	2750	8	351	7150	2040000	26400	40900	1000	2750	8	351	7150	2040000	26400	40900	73700000	300	8	351	7150	16400000	26400	613000000
viation	Depth End	1.0	1.0	1.0	1.0	10	10	1.0	10	10	1.0	13	13	13	13	13	13	13	13	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5
ard De	Depth Start	0.8	80	0.8	8.0	0.8	0.8	0.8	0 8	0.8	0.8	0.8	0.8	80	0.8	8.0	80	0.8	80	0.0	0.0	0.0	00	0.0	0.0	00	00	00	00
I WU SLAIIU	Background Mean + 2 SD	1	289 38	38 21	1	24.97	3 04	0 12	1 49	88 49		289 38	38 21	24 97	3 04	0 12	1 49	88 49	-	141 260	18 060	NA	2 000	0 094	2 000	45 590	NA	141 260	NA
	Detection Limit	100	86	4	5.2	7	4 958727	0 148294	1 669605	31	10	86	4	7	4 059155	0 125196	1 366719	31	10	00 86	4 00	00 29	1 78	0 14	1 78	31 00	58 00	08 00	61 00
	Result	30	746	82 4	3	31.7	6 237	03	2.1	105	21	791	58 5	356	7 722	0 14	2.6	115	16	1020 00	57 90	380 00	2 10	0 16	2 10	107 00	65 00	646 00	110 00
	Analyte	Acetone	Barıum	Copper	Ethylbenzene	Lead	Uranıum, Total	Uranium-235	Uranium-238	Vanadıum	Xylene	Barıum	Copper	Lead	Uranum, Total	Uranium-235	Uranıum-238	Vanadıum	Xylene	Barıum	Copper	D1-n-butylphthalate	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	4-Methyl-2-pentanone	Barıum	Phenol
	Actual Northing	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750975 659	750993 441	750993 441	750993 441	750993 441	750993 441	750993 441	750993 441	751010 236	751010 236	751010 236
	Actual Easting	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083811 960	2083684 818	2083684 818	2083684 818	2083684818	2083684 818	2083684 818	2083684 818	2083724 006	2083724 006	CE48-026 2083724 006
	Location Code	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CF48-021	CE48-025	CE48-025	CE48-025	CE48-025	CE48-025	CE48-025	CE48-025	CE48-026	CE48-026	CE48-026
	IHSS/PAC/ UBC Site											•					<b>-</b>		, <b>-</b>	<u></u>		!							

Table 3

its	Units	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	pCu/g	pC1/g	pC1/g	mg/kg	mg/kg
ction Lim	Ecological AL	433	211000	216	-	800000	25700	1010000	1010000	•	\$		ŧ	-	-		-	•	-	8 / 9	678	1800	1900	1600	433	•
s or Dete	WRW AL	7150	102000000	22.2	26400	34900	3490	34900	349000	268	3490000	40900	3490	27200000	34900	307000	20400	22100000	613000	2750	2750	300	8	351	7150	307000
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard D	Depth Start	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	00	00	0.0	0.0	00	00
Two Stanc	Background Mean + 2 SD	45 590	t	10 09	141 26	•	_	•	-	16 99	•	18 06	-	•	1	18037	14 91	_	48 94	5 98	5 98	2 253	0 0939	2	45 59	73.76
<b>Seans Plus</b>	Detection Limit	31 00	110	5	86	49	64	79	85	20	43	4	78	49	55	2190	12	70	20	6 0 2 9	906 9	2 326	0 153	2 326	31	6
ground M	Result	118 00	27	111	099	2300	2800	890	270	47	4400	52 2	890	170	570	34200	50 1	1100	133	8 8209	10 098	34	0.21	3.4	118	878
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Vanadıum	Acetone	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Nickel	Pyrene	Strontium	Uransum, Total	Uransum, Total	Uranium-234	Uranium-235	Uranium-238	Vanadıum	Zinc
ation Result	Actual Northing	751010 236	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589	750984 589
Characteriz	Actual Easting	2083724 006	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	2084098 600	2084098 600	2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	CG48-022 2084098 600	2084098 600	2084098 600	2084098 600
oup 700-4	Location Code	CE48-026	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022	CG48-022
IHSS Gr	IHSS/PAC/ UBC Site													•												

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its	Units	<u> </u>	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	pC1/g	pCı/g	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg
ction Lim	Ecological AL		,	800000	25700	1010000	1010000	•	•	•	•	•	•	•	•	-	•	67.8	8 19	1800	1900	1600	ı	433	NA	800000
is or Dete	WRW AL		26400	34900	3490	34900	349000	268	3490000	40900	27200000	34900	307000	3480	20400	22100000	613000	2750	2750	300	8	351	307000	7150	204000000	34900
eviation	Depth End		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.5	2.5
lard De	Depth Start		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5
s Two Stand	Background Mean + 2 SD		141 26	•		-		16 99	•	18 06	1	•	18037	365 08	14 91	4	48 94	5 98	5 98	2 253	0 0939	2	73.76	45 59	NA	NA
leans Plus	Detection Limit		000 86	43 000	26 000	000 69	74 000	20 000	37 000	4 000	43 000	48 000	2190 000	158 000	12 000	61 000	20 000	4 871	5 408	164	0 116	1 164	0006	31 00	000 69	41 000
Table 3 ackground M	Result		713	86	120	98	120	876	120	171	150	55	47500	1260	79.9	160	491	8 0487	8 93673	3 009	0 1421	3 009	130	93.4	110 000	480 000
Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte		Вагіит	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranıum, Total	Uranıum, Total	Uranium-234	Uranıum-235	Uranium-238	Zinc	Vanadıum	Anthracene	Benzo(a)anthracene
ation Result	Actual Northing		751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860	751217 860
Characteriz	Actual Easting		2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	CE49-008 2083695 019	2083695 019	2083695 019	2083695 019	CE49-008 2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019	2083695 019
roup 700-4	Location Code		CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008	CE49-008
IHSS G	IHSS/PAC/ UBC Site	Tank 8- OPWL -East and West	Miscellaneous Tanks								-															

Table 3

IHSS G	roup 700-4	IHSS Group 700-4 Characterization Results	zation Resul	ts Greater Than Background Means Plus Two Standard Deviations or Detection Limits	kground N	feans Plu	s Two Stand	lard De	viation	is or Detec	ction Lımi	its
IHSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE49-008	2083695 019	751217 860	Benzo(a)pyrene	520 000	54 000	NA	0.5	2.5	34900	25700	ug/kg
	CE49-008	2083695 019	751217 860	Benzo(b)fluoranthene	450 000	000 29	NA	0.5	2.5	34900	1010000	ug/kg
	CF49-008	010369806	751217 860	B1s(2-	110 000	74 000	Y Z	0.5	2.5	1970000	Z	ug/kg
	CE49-008	2083695 019	751217 860	Butylbenzylphthalate	110 000	000 89	NA	0.5		147000000	NA AN	ug/kg
	CE49-008	2083695 019	751217 860	Chromium	73 900	20 000	68 27	0.5	2.5	268	NA	mg/kg
	CE49-008	2083695 019	751217 860	Chrysene	540 000	36 000	NA	0.5	2.5	3490000	NA	ug/kg
	CE49-008	2083695 019	751217 860	Copper	132 000	4 000	38 21	0.5	2.5	40900	NA	mg/kg
	CE49-008	2083695 019	751217 860	Dibenz(a,h)anthracene	120 000	000 99	NA	0.5	2.5	3490	NA	ug/kg
	CE49-008	2083695 019	751217 860	Fluoranthene	270 000	41 000	NA	0.5	2.5	27200000	NA	ug/kg
	CE49-008	-	751217 860	Indeno(1,2,3-cd)pyrene	260 000	47 000	NA	0.5	2.5	34900	NA	ug/kg
	CE49-008	2083695 019	751217 860	Iron	42400 000	2190 000	41046 52	0.5	2.5	307000	NA	mg/kg
	CE49-008	2083695 019	751217 860	Lead	000 97	0 220	24.97	0.5	2.5	1000	25.6	mg/kg
	CE49-008	2083695 019	751217 860	Pyrene	910 000	59 000	NA	0.5	2.5	22100000	NA	ug/kg
-	CE49-008	2083695 019	751217 860	Strontium	273 000	20 000	211 38	0.5	2.5	613000	NA	mg/kg
	CE49-008	2083695 019	751217 860	Zinc	260 000	9 000	139 1	0.5	2.5	307000	NA	mg/kg
_	CE49-008	2083695 019	751217 860	Barium	938 000	98 000	289 38	110	130	26400	NA	mg/kg
	CE49-008	CE49-008 2083695 019	751217 860	Uranum-234	4 253	1 440	26	110	130	300	1800	$pCV_g$
	CE49-008	2083695 019	751217 860	Urantum-235	0 266	0 134	0 12	110	130	8	1900	pC1/g
	CE49-008	2083695 019	751217 860	Uranıum-238	4 253	1 440	1 49	110	130	351	1600	pC1/g
	CE49-008	2083695 019	751217 860	Vanadıum	150 000	31 000	88 49	110	130	7150	433	mg/kg
	CE49-009	2083708 276	751217 858	Acenaphthene	66	50	-	0	0.5	40800000	t	ug/kg
	CE49-009	2083708 276	751217 858	Anthracene	230	72	_	0	0.5	204000000	1	ug/kg
	CE49-009	2083708 276	751217 858	Barıum	711	98	141 26	0	0.5	26400	1	mg/kg
	CE49-009	2083708 276	751217 858	Benzo(a)anthracene	800	43	•	0	0.5	34900	800000	ug/kg
	CE49-009	2083708 276	751217 858	Benzo(a)pyrene	810	57	ı	0	0.5	3490	25700	ug/kg
	CE49-009	2083708 276	751217 858	Benzo(b)fluoranthene	200	70	-	0	0.5	34900	1010000	ng/kg
	CE49-009	2083708 276	751217 858	Benzo(k)fluoranthene	800	76	1	0	0.5	349000	1010000	ug/kg

Table 3 results Greater Than Rackoround Means Plus Two Standard Deviations

2000	oo dan dan da									200		
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE49-009	2083708 276	751217 858	Chromium	32	80 0	16 99	0	0.5	268		mg/kg
	CE49-009	2083708 276	751217 858	Chrysene	880	38	t	0	0.5	3490000	•	ug/kg
	CE49-009	2083708 276	751217 858	Cobalt	11	80 0	10 91	0	0.5	1550	•	mg/kg
	CE49-009	2083708 276	751217 858	Copper	50	0 21	18 06	0	0.5	40900	•	mg/kg
	CE49-009	2083708 276	751217 858	Dibenz(a,h)anthracene	170	69	-	0	0.5	3490	•	ug/kg
	CE49-009	2083708 276	751217 858	Fluoranthene	1500	43	•	0	0.5	27200000	•	ug/kg
	CE49-009	2083708 276	751217 858	Fluorene	89	09		0	0.5	40800000	4	ug/kg
	CE49-009	2083708 276	751217 858	Indeno(1,2,3-cd)pyrene	460	49	-	0	0.5	34900	•	ug/kg
	CE49-009	2083708 276	751217 858	Iron	26000	1.8	18037	0	0.5	307000	•	mg/kg
	CE49-009	2083708 276	751217 858	Manganese	200	0 041	365 08	0	0.5	3480	•	mg/kg
	CE49-009	2083708 276	751217 858	Naphthalene	59	47	-	0	0.5	3090000	•	ug/kg
	CE49-009	2083708 276	751217 858	Nickel	32	0.2	14 91	0	0.5	20400	•	mg/kg
	CE49-009	2083708 276	751217 858	Pyrene	1600	62	4	0	0.5	22100000	•	ug/kg
	CE49-009	2083708 276	751217 858	Strontium	70	0 056	48 94	0	0.5	613000	•	mg/kg
	CE49-009	2083708 276	751217 858	Tın	3.6	0.35	2.9	0	0.5	613000	•	mg/kg
	CE49-009	2083708 276	751217 858	Uranium, Total	7.5	4 46	5 98	0	0.5	2750	8 /9	mg/kg
	CE49-009	2083708 276	751217 858	Uranıum, Total	8.2	4 86	5 98	0	0.5	2750	8 / 9	mg/kg
	CE49-009	2083708 276	751217 858	Uranium-234	2.75	1 64	2 253	0	0.5	300	1800	pC1/g
	CE49-009	2083708 276	751217 858	Uranium-235	0 12	931	0 0939	0	0.5	8	1900	pC1/g
	CE49-009	2083708 276	751217 858	Uranium-238	2.75	1 62	2	0	0.5	351	1600	pC1/g
	CE49-009	2083708 276	751217 858	Vanadıum	89	0 16	45 59	0	0.5	7150	433	mg/kg
	CE49-009	2083708 276	751217 858	Zinc	112	6	73 76	0	0.5	307000	ŧ	mg/kg
	CE49-009	2083708 276	751217 858	Barium	673 000	000 86	289 38	0.5	2.5	26400	NA	mg/kg
	CE49-009	2083708 276	751217 858	Copper	126 000	4 000	38 21	0.5	2.5	40900	NA	mg/kg
	CE49-009	2083708 276	751217 858	Lead	33.900	7.000	24.97	0.5	2.5	1000	25.6	mg/kg
	CE49-009	2083708 276	751217 858	Strontium	248 000	20 000	211 38	0.5	2.5	613000	NA	mg/kg
	CE49-009	2083708 276	751217 858	Uranium-235	0 287	0 147	0 12	0.5	2.5	8	1900	pC1/g
	CE49-009	2083708 276	751217 858	Vanadıum	123 000	31 000	88 49	0.5	2.5	7150	433	mg/kg
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IHSS Groun 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

D CCITI	roup /oo-4	- Characteriz	zationi nesui	INSS Group /00-4 Characterization results Greater Than Dackground Means The Landraid Deviations of Detection Limits	A Duna IK	icalls r ius	S I WU Stallt	ומות ה	YIALION	is of Dete		3
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE49-009	2083708 276	751217 858	Zinc	191 000	000 6	139 1	0.5	2.5	307000	NA	mg/kg
	CE49-009	2083708 276	751217 858	Uranum-234	4 444	I 470	26	110	130	300	1800	pCv8
	CE49-009	2083708 276	751217 858	Uranıum-238	4 444	1 470	1 49	110	13.0	351	1600	pC1/g
	CG48-011	2084113 720	751032 738	Arsenic	20 20	2 00	10 090	0.0	0.5	22 2	216	mg/kg
	CG48-011	2084113 720	751032 738	Barıum	764 00	00 86	141 260	0.0	0.5	26400	NA	mg/kg
	CG48-011	2084113 720	751032 738	Benzo(a)anthracene	110 00	42 00	NA	0.0	0.5	34900	800000	ug/kg
	CG48-011	2084113 720	751032 738	Benzo(a)pyrene	150 00	55 00	NA	0.0	0.5	3490	25700	ug/kg
	CG48-011	2084113 720	751032 738	Chromium	50 10	20 00	16 990	0.0	0.5	268	NA	mg/kg
	CG48-011	2084113 720	751032 738	Chrysene	200 00	37 00	NA	0.0	0.5	3490000	NA	ug/kg
	CG48-011	2084113 720	751032 738	Copper	103 00	4 00	18 060	0.0	0.5	40900	NA	mg/kg
	CG48-011	2084113 720	751032 738	Indeno(1,2,3-cd)pyrene	51 00	48 00	NA	0.0	0.5	34900	NA	ug/kg
	CG48-011	2084113 720	751032 738	Iron	42300 00	2190 00	18037 000	00	0.5	307000	NA	mg/kg
	CG48-011	2084113 720	751032 738	Manganese	387 00	158 00	365 080	0.0	0.5	3480	NA	mg/kg
	CG48-011	2084113 720	751032 738	Nickel	61 40	12 00	14 910	0.0	0.5	20400	NA	mg/kg
	CG48-011	2084113 720	751032 738	Strontium	170 00	20 00	48 940	0.0	0.5	613000	NA	mg/kg
	CG48-011	2084113 720	751032 738	Uranum-234	3 40	164	2 000	00	0.5	300	0081	pCv/g
	CG48-011	2084113 720	751032 738	Uranium-238	3 40	164	2 000	00	0.5	351	1600	pC <sub>I</sub> /g
	CG48-011	2084113 720	751032 738	Vanadıum	136 00	31 00	45 590	0.0	0.5	7150	433	mg/kg
	CG48-011	2084113 720	751032 738	Zinc	90 20	9 00	73 760	00	0.5	307000	NA	mg/kg
	CG48-012	2084114 856	751013 428	Barıum	675 00	00 86	141 260	00	0.5	26400	NA	mg/kg
	CG48-012	2084114 856	751013 428	Benzo(a)anthracene	230 00	48 00	NA	0.0	0.5	34900	800000	ug/kg
	CG48-012	2084114856	751013 428	Benzo(a)pyrene	320 00	63 00	NA	0.0	0.5	3490	25700	ug/kg
	CG48-012	2084114856	751013 428	Benzyl Alcohol	360 00	100 00	NA	00	0.5	307000000	NA	ug/kg
	CG48-012	2084114 856	751013 428	Chromium	40 50	20 00	16 990	00	0.5	268	NA	mg/kg
	CG48-012	2084114856	751013 428	Chrysene	450 00	42 00	NA	00	0.5	3490000	NA	ug/kg
	CG48-012	2084114856	751013 428	Copper	81 60	4 00	18 060	0.0	0.5	40900	NA	mg/kg
	CG48-012	2084114856	751013 428	Iron	24100 00	2190 00	18037 000	0.0	0.5	307000	NA	mg/kg
	CG48-012	2084114856	751013 428	Nickel	38 30	12 00	14 910	0.0	0.5	20400	NA	mg/kg

ER RSOP Notification and Closeout Report IHSS Group 700-4

IHSS C	roup 700-4	Characteriz	zation Resul	IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits	ground M	leans Plu	s Two Stand	ard De	viation	s or Dete	ction Lim	its
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CG48-012	2084114 856	751013 428	Strontium	161 00	20 00	48 940	0.0	0.5	613000	NA	mg/kg
	CG48-012	2084114 856	751013 428	Urantum-235	010	90 0	0 094	0.0	0.5	8	1900	pC1/g
	CG48-012	2084114 856	751013 428	Vanadıum	120 00	31 00	45 590	0.0	0.5	7150	433	mg/kg
	CG48-012	2084114856	751013 428	Xylene	17 00	12 00	NA	0.0	0.5	2040000	NA	ug/kg
	CG48-012	2084114 856	751013 428	Zinc	103 00	9 00	73 760	0.0	0.5	307000	NA	mg/kg
	CG48-013	2083979 689	751086 123	Arsenic	15 40	5 00	10 090	0.0	0.5	22.2	216	mg/kg
	CG48-013	2083979 689	751086 123	Barıum	664 00	98 00	141 260	0	0.5	26400	NA	mg/kg
	CG48-013	2083979 689	751086 123	Benzo(a)anthracene	120 00	46 00	NA	00	0.5	34900	800000	ug/kg
	CG48-013	2083979 689	751086 123	Benzo(a)pyrene	140 00	61 00	NA	0.0	0.5	3490	25700	ug/kg
	CG48-013	2083979 689	751086 123	Benzo(b)fluoranthene	100 00	75 00	NA	00	0.5	34900	1010000	ug/kg
	CG48-013	2083979 689	751086 123	Benzo(k)fluoranthene	120 00	81 00	NA	00	0.5	349000	1010000	ug/kg
	CG48-013	2083979 689	751086 123	Chromium	30 20	20 00	16 990	0.0	0.5	268	NA	mg/kg
	CG48-013	2083979 689	751086 123	Chrysene	140 00	40 00	NA	0.0	0.5	3490000	NA	ug/kg
	CG48-013	2083979 689	751086 123	Copper	63 70	4 00	18 060	00	0.5	40900	NA	mg/kg
	CG48-013	2083979 689	751086 123	Fluoranthene	290 00	46 00	NA	00	0.5	27200000	NA	ug/kg
	CG48-013	2083979 689	751086 123	Indeno(1,2,3-cd)pyrene	00 98	52 00	NA	00	0.5	34900	NA	ug/kg
	CG48-013	2083979 689	751086 123	Iron	34800 00	2190 00	18037 000	00	0.5	307000	NA	mg/kg
	CG48-013	2083979 689	751086 123	Nickel	42 70	12 00	14 910	00	0.5	20400	NA	mg/kg
	CG48-013	2083979 689	751086 123	Pyrene	280 00	66 00	NA	00	0.5	22100000	NA	ug/kg
	CG48-013	2083979 689	751086 123	Strontium	173 00	20 00	48 940	0.0	0.5	613000	NA	mg/kg
	CG48-013	2083979 689	751086 123	Uranium-234	530	168	23	00	0.5	300	1800	pCv/g
	CG48-013	2083979 689	751086 123	Uranıum-238	5 30	1 68	2 000	00	0.5	351	1600	pC1/g
	CG48-013	2083979 689	751086 123	Vanadıum	115 00	31 00	45 590	0.0	0.5	7150	433	mg/kg
	CG48-013	2083979 689	751086 123	Zinc	111 00	006	73 760	00	0.5	307000	NA	mg/kg
Tanks 14 and 16	CH48-017	2084157 880	751040 548	Americium-241	0 410	0 152	0 02	5.5	7.5	76	1900	pCı/g
	CH48-017	2084157 880	751040 540	Barıum	590 000	98 000	289 38	5.5	7.5	26400	NA	mg/kg
	CH48-017	2084157 880	751040 548	Copper	101 000	4 000	38 21	55	7.5	40900	NA	mg/kg
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IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

	Units	pCv/g	mg/kg	mg/kg	pC1/g	mg/kg	pCv/g	mg/kg	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg	mg/kg		mg/kg	0//0	S S S	mg/kg	ug/kg	pCvg	mg/kg	pCu/g	mg/kg	mg/kg	PC1/g
	Ecological U	3800 p	433 m	NA	1900 p	NA m	3800 p	433 m	NA m	NA m	1800 p	1900 p	1600 p	433 m	216 m	NA m		NA B	1800	1	433 m	211000 u	1900 p	-	3800 P	433 m		1800 P
	WRW AL Ec	50	7150	307000	9/	26400	20/116	7150	26400	40900	300	8	351	7150	22.2	26400		40900	300	351	7150	02000000	76	26400	50	7150		300
-	Depth WR End	7.5	75 7	75 30	14.5	145 2	145 5(	14.5 7	13.5	135 4	135	13.5	13.5	13.5 7	05	05 2		05 4	0.5	-	05 7	0.5 102	0.5	05 2	0.5	05 7		1 33
	Depth D Start ]	5.5	5.5	5.5	12.5	12.5	12.5	12.5	11.5	11.5	115	11.5	11.5	11.5	0.0	0.0		00	00	00	00	00	0.0	0.0	00	0.0	0.83	0 83
Rackeround	Mean +2SD	0 02	88 49	139 1	0 02	289 38	0 02	88 49	289 38	38 21	26	0 12	1 49	88 49	10 090	141 260		18 060	2 000	2 000	45 590	-	0 02	289 38	0 02	88 49	304	2 64
	Detection Limit	0 021	31 000	000 6	0 299	000 86	0 007	31 000	000 86	4 000	2 780	0 125	2 780	31 000	2 00	00 86		00 4	151	151	31 00	5	0 481	86	0 0 0	31	4 0689	137
, [	Result	0 603	138 000	342 000	1 020	571 000	2 060	105 000	534 000	123 000	111 +	0 228	4 111	146 000	13 90	564 00		114 00	3 78	3.78	202 00	27	4 896	619	I 32	115	7 5438	3 172
Rackeround	Analyte	Plutonium-239/240	Vanadıum	Zinc	Americium-241	Barıum	Plutonium-239/240	Vanadıum	Barıum	Copper	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	Arsenic	Barnum		Copper	P&C-mmuDA[]	Uranıum-238	Vanadıum	Acetone	Americium-241	Barnum	Plutonium-239/240	Vanadıum	Urantum, Total	Uranıum-234
	Actual Northing	751040 548	751040 548	751040 548	751008 538	751008 538	751008 538	751008 538	751017 524	751017 524	751017 524	751017 524	751017 524	751017 524	751097 309	751097 309		751097 309	751097 300	T	751097 309	751097 30		751097 30	- 1			7510973
	Actual Easting	2084157 880	2084157 880	2084157 880	2084150 627	2084150 627	2084150 627	2084150 627	2084166 664	2084166 664	2084166 664	2084166 664	2084166 664	2084166 664	2084095 604	2084095 604		2084095 604	2084005 604	2084095 604	2084095 604	2083724 010	2083724 010	2083724 010	2083724 010	2083724 010	20840956	2084095 6
•	Location	CH48-017	CH48-017	CH48-017	CH48-018	CH48-018	CH48-018	CH48-018	CH48-019	CH48-019	CH48-019	CH48-019	CH48-019	CH48-019	CG48-006	CG48-006		CG48-006	CG48-006		CG48-006		CG48-023	CG48-023		-	CG48-023	CG48-023
	IHSS/PAC/ UBC Site								-						IHSS 700-125	- Abandoned	Building 774	Unit 55 13 T- 40	(All depths	building slab)	•							

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

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IHSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CG48-023	2084095 6	751097 3	Uranium-235	0 1761	0 115	0 12	0.83	1 33	8	1900	pC1/g
	CG48-023	2084095 6	751097 3	Uranıum-238	3 172	1 37	1 49	0.83	1 33	351	1600	pCı/g
	CG48-007	2084126 123	751097 231	Americium-241	1 35	09 0	0 023	00	0.5	- 2/2	1900	pC1/g
	CG48-007	2084126 123	751097 231	Arsenic	13 70	2 00	10 090	0.0	0.5	22 2	21 6	mg/kg
	CG48-007	2084126 123	751097 231	Barıum	1700 00	00 86	141 260	00	0.5	26400	NA	mg/kg
	CG48-007	2084126 123	751097 231	Copper	230 00	4 00	18 060	0.0	0.5	40900	NA	mg/kg
	CG48-007	2084126 123	751097 231	Nickel	71 90	12 00	14 910	0.0	0.5	20400	NA	mg/kg
	CG48-007	2084126 123	751097 231	Plutonium-239/240	14 17	090	9900	00	0.5	20/116	3800	pCv/g
	CG48-007	2084126 123	751097 231	Uranum-234	4 67	172	23	00	0.5	300	1800	pCu/g
	CG48-007	2084126 123	751097 231	Uranium-238	4 67	1 72	2 000	0.0	0.5	351	1600	pC1/g
	CG48-007	2084126 123	751097 231	Vanadium	156 00	31 00	45 590	0.0	0.5	7150	433	mg/kg
	CG48-007	2084126 123	751097 231	Zinc	189 00	00 6	73 760	00	0.5	307000	NA	mg/kg
	CG48-008	2084126.045	751068.741	Americum-241	1220.00	70.30	0 023	0.0	0.5	76	1900	pC1/g
	CG48-008	2084126 045	751068 741	Barnum	541 00	00 86	141 260	0.0	0.5	26400	NA	mg/kg
	CG48-008	2084126 045	751068 741	Copper	85 90	4 00	18 060	00	0.5	40900	NA	mg/kg
	CG48-008	2084126 045	751068 741	Plutonium-239/240	00 069I	00 99	9900	00	0.5	50	3800	pCug
	CG48-008	2084126 045	751068 741	Uranum-234	2 94	0 42	2 253	00	0.5	300	1800	pCv/g
	CG48-008	2084126 045	751068 741	Uranium-238	2 94	0 42	2 253	0.0	0.5	351	1600	pC1/g
	CG48-008	2084126 045	751068 741	Vanadıum	174 00	31 00	45 590	0.0	0.5	7150	433	mg/kg
	CG48-009	2084095 838	751069 053	Americium-241	116 40	1 32	0 023	0.0	0.5	76	1900	pCi/g
	CG48-009	2084095 838	751069 053	Barıum	488 00	08 00	141 260	00	0.5	26400	NA	mg/kg
	CG48-009	2084095 838	751069 053	Chromium	35 60	20 00	16 990	00	0.5	268	NA	mg/kg
	CG48-009	2084095 838	751069 053	Copper	32 90	4 00	18 060	00	0.5	40900	NA	mg/kg
	CG48-009	2084095 838	751069 053	Iron	20900 00	2190 00	18037 000	00	0.5	307000	NA	mg/kg
	CG48-009	2084095 838	751069 053	Nickel	32 50	12 00	14 910	00	0.5	20400	NA	mg/kg
	CG48-009	2084095 838	751069 053	Plutonium-239/240	943 75	132	9900	00	0.5	20/116	3800	pCvg
	CG48-009	2084095 838	751069 053	Strontium	103 00	20 00	48 940	00	0.5	613000	NA	mg/kg
	CG48-009	CG48-009 2084095 838	751069 053	Uranum-234	3 02	143	23	00	0.5	300	1800	PCVR

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IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	pCı/g	pC1/g	mg/kg	mg/kg	pCı/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCv/g	mg/kg	pCv8	pC1/g	pC1/g	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	pCug
Ecological AL	1900	1600	433	NA	1900	216	NA	NA	NA	NA	NA	3800	NA	0081	1900	1600	433	NA	0081	1900	1600	ΝA	NA	0081	1900	1600	433	0081
WRW AL	8	351	7150	307000	76	22 2	26400	268	40900	307000	20400	50/116	613000	00€	8	351	7150	307000	300	8	351	26400	40900	300	8	351	7150	300
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	65	6.5	6.5	6.5	6.5	65	6.5	6.5	6.5	3.5
Depth Start	00	00	00	00	00	0.0	00	00	00	00	00	00	00	00	00	00	00	00	45	4.5	4.5	4.5	4.5	45	4.5	4.5	4.5	15
Background Mean + 2 SD	0 094	2 000	45 590	73 760	0 023	10 090	141 260	16 990	18 060	18037 000	14 910	0 066	48 940	23	0 094	2 000	45 590	73 760	26	0 12	1 49	289 38	38 21	26	0 12	1 49	88 49	26
Detection Limit	0 18	1 43	31 00	9 00	0.52	5 00	98 00	20 00	4 00	2190 00	12 00	0 52	20 00	I 49	0 12	1 49	31 00	9 00	1 320	0 088	1 320	98 000	4 000	1 600	0 182	1 600	31 000	I 760
Result	0 34	3 02	06 96	91 20	1 29	14 50	583 00	31 80	130 00	23900 00	46 50	13 66	117 00	5 20	0 28	5 20	211 00	159 00	3 013	0 134	3 013	548 000	134 000	4 204	0 404	4 204	149 000	3 323
Analyte	Uranium-235	Uranium-238	Vanadıum	Zinc	Americium-241	Arsenic	Barrum	Chromium	Copper	Iron	Nickel	Plutonium-239/240	Strontium	Uranum-234	Uranium-235	Uranium-238	Vanadıum	Zinc	Uranum-234	Uranium-235	Uranium-238	Barıum	Copper	Uranium-234	Uranium-235	Uranium-238	Vanadium	Uranium-234
Actual Northing	751069 053	751069 053	751069 053	751069 053	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751082 557	751136 354	751136 354	751136 354	751185 699	751185 699	751185 699	751185 699	751185 699	751185 699	751127 211
Actual Easting	2084095 838	2084095 838	2084095 838	2084095 838	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2084110 200	2083613 420	2083613 420	2083613 420	2083697 462	2083697 462	2083697 462	2083697 462	2083697 462	2083697 462	CF48-018 2083921 848
Location	CG48-009	CG48-009	CG48-009	CG48-009	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CG48-010	CE48-024	CE48-024	CE48-024	CE49-000	CE49-000	CE49-000	CE49-000	CE49-000	CE49-000	CF48-018
IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Actual Easting         Actual Northing         Analyte           2083921 848         751127 211         Uranium-235           2083921 848         751127 211         Uranium-238           2083781 676         751190 430         Americium-241           2084093 865         750889 982         Arsenic           2084093 865         750889 982         Oranium-234           2084093 865         750889 982         Uranium-234           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Copper           2084102 832         750900 030         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137													
2083921 848         751127 211         Uranum-235           2083921 848         751127 211         Uranum-238           2083781 676         75189 932         Arsenic           2084093 865         750889 982         Arsenic           2084093 865         750889 982         Copper           2084093 865         750889 982         Uranum-234           2084093 865         750889 982         Uranum-235           2084093 865         750889 982         Uranum-234           2084093 865         750889 982         Uranum-234           2084093 865         750889 982         Uranum-234           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranum-234           2084101 530         751137 132         Uranum-234           2084011 530         751137 132         Uranum-238           2084011 530         751137 132         Uranum-238	IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
208321 848         751127 211         Uranum-238           2083781 676         751190 430         Americium-241           2084093 865         750889 982         Arsenic           2084093 865         750889 982         Oranum-234           2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-241           2084102 832         750900 030         Americium-241           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-238           2084011 530         751137 132 <td></td> <td>CF48-018</td> <td>2083921 848</td> <td></td> <td>Uranıum-235</td> <td>0 231</td> <td>0 125</td> <td>0 12</td> <td>1.5</td> <td>3.5</td> <td>8</td> <td>1900</td> <td>pC1/g</td>		CF48-018	2083921 848		Uranıum-235	0 231	0 125	0 12	1.5	3.5	8	1900	pC1/g
2083781 676         751190 430         Americum-241           2084093 865         750889 982         Arsenic           2084093 865         750889 982         Barium           2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-238           2084093 865         750889 982         Uranium-238           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Iron           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         U		CF48-018	2083921 848		Uranıum-238	3 323	1 760	1 49	1.5	3.5	351	1600	pC1/g
2084093 865         750889 982         Arsenic           2084093 865         750889 982         Barium           2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-238           2084093 865         750889 982         Uranium-238           2084102 832         750900 030         Americium-241           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Iron           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-235           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vanadium           2084011 530         751137 132         Vanadium		CF49-017	2083781 676		Americium-241	0 094	0 077	0 02	4.5	6.5	76	1900	pC1/g
2084093 865         750889 982         Barıum           2084093 865         750889 982         Uranıum-234           2084093 865         750889 982         Uranıum-235           2084093 865         750889 982         Uranıum-238           2084093 865         750889 982         Uranıum-238           2084102 832         750900 030         Arsenıc           2084102 832         750900 030         Arsenıc           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranıum-234           2084102 832         750900 030         Uranıum-234           2084102 832         750900 030         Uranıum-238           2084102 832         750900 030         Uranıum-238           2084102 832         750900 030         Uranıum-238           2084102 832         750900 030         Vanadıum           2084102 832         750900 030         Vanadıum           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranıum-234           2084011 530         751137 132         Vanadıum           2084011 530         751137 132         Vanadıum           2084011 530         751137 132         Vanadıum		CG47-002	2084093 865	ļ	Arsenic	15 500	5 000	13 14	4.5	6.5	22 2	216	mg/kg
2084093 865         750889 982         Copper           2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-238           2084093 865         750889 982         Uranium-238           2084102 832         750900 030         Ansenic           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vanadium           2084011 530         751137 132         Vanadium           2084011 530         751137 132         Vanadium           2084011 530         751137 132         V			2084093 865		Barıum	613 000	000 86	289 38	4.5	6.5	26400	NA	mg/kg
2084093 865         750889 982         Uranium-234           2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-238           2084102 835         750900 030         Americium-241           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Copper           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Vanadium		CG47-002			Copper	62 000	4 000	38 21	4.5	6.5	40900	NA	mg/kg
2084093 865         750889 982         Uranium-235           2084093 865         750889 982         Uranium-238           2084102 832         750900 030         Ansenic           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Barium           2084102 832         750900 030         Iron           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-235           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Vanadum		CG47-002	2084093 865		Uranum-234	4 424	1 240	26	45	65	300	1800	pCv/g
2084093 865         750889 982         Uranium-238           2084093 865         750889 982         Vanadium           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Copper           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Barium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vanadium			2084093 865		Uranum-235	0 196	0 139	0 12	4.5	6.5	8	1900	pC1/g
2084093 865         750889 982         Vanadum           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Copper           2084102 832         750900 030         Copper           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           208401 830         751137 132         Barrum           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vanadum		CG47-002	2084093 865		Uranıum-238	4 424	1 240	1 49	4.5	6.5	351	1600	pC1/g
2084102 832         750900 030         Americium-241           2084102 832         750900 030         Arsenic           2084102 832         750900 030         Barium           2084102 832         750900 030         Iron           2084102 832         750900 030         Ironum-239/240           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-235           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Vanadum			2084093 865		Vanadıum	139 000	31 000	88 49	4.5	6.5	7150	433	mg/kg
2084102 832       750900 030       Arsenic         2084102 832       750900 030       Barium         2084102 832       750900 030       Iron         2084102 832       750900 030       Iron         2084102 832       750900 030       Uranium-234         2084102 832       750900 030       Uranium-238         2084102 832       750900 030       Uranium-238         2084102 832       750900 030       Vanadium         2084011 530       751137 132       Barium         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Zinc		CG47-003	2084102 832		Americium-241	0 356	0 224	0 02	4.5	6.5	76	1900	pC1/g
2084102 832         750900 030         Barnum           2084102 832         750900 030         Copper           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           2084102 832         750900 030         Vanadium           2084011 530         751137 132         Barrum           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vanadium			2084102 832		Arsenic	20 000	5 000	13 14	4.5	6.5	22 2	216	mg/kg
2084102 832         750900 030         Copper           2084102 832         750900 030         Iron           2084102 832         750900 030         Uranium-239/240           2084102 832         750900 030         Uranium-235           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Uranium-238           2084012 832         750900 030         Vanadium           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Uranium-238           2084011 530         751137 132         Vanadum		CG47-003		- 1	Barnum	520 000	000 86	289 38	4.5	6.5	26400	NA	mg/kg
2084102 832         750900 030         Iron           2084102 832         750900 030         Plutonium-239/240           2084102 832         750900 030         Uranium-234           2084102 832         750900 030         Uranium-238           2084102 832         750900 030         Vanadium           208401 832         750900 030         Vanadium           208401 530         751137 132         Barrum           2084011 530         751137 132         Copper           2084011 530         751137 132         Uranium-234           2084011 530         751137 132         Vandum           2084011 530         751137 132         Vanadium		CG47-003	2084102 832	ı	Copper	102 000	4 000	38 21	4.5	6.5	40900	NA	mg/kg
2084102 832       750900 030       Plutonium-239/240         2084102 832       750900 030       Uranium-234         2084102 832       750900 030       Uranium-238         2084102 832       750900 030       Vanadium         208401 530       751137 132       Barium         2084011 530       751137 132       Copper         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Uranium-238         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Vanadium		$\overline{}$	2084102 832	- 1	Iron	41900 000	2190 000	41046 52	4.5	6.5	307000	NA	mg/kg
2084102 832       750900 030       Uranium-234         2084102 832       750900 030       Uranium-235         2084102 832       750900 030       Uranium-238         2084102 832       750900 030       Vanadium         2084011 530       751137 132       Barium         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Uranium-238         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Zinc         2084011 530       751137 132       Zinc		CG47-003	2084102 832	1	Plutonium-239/240	0 142	0 0 0	0 02	45	65	20/116	3800	pCv/g
2084102 832       750900 030       Uranum-235         2084102 832       750900 030       Uranum-238         2084102 832       750900 030       Vanadum         2084011 530       751137 132       Barum         2084011 530       751137 132       Copper         2084011 530       751137 132       Uranum-234         2084011 530       751137 132       Uranum-238         2084011 530       751137 132       Vanadum         2084011 530       751137 132       Zinc         2084011 530       751137 132       Zinc			2084102 832		Uranum-234	2 473	1 540	26	45	65	300	1800	pCv/g
2084102 832       750900 030       Uranum-238         2084102 832       750900 030       Vanadum         2084011 530       751137 132       Barum       6         2084011 530       751137 132       Uranum-234       6         2084011 530       751137 132       Uranum-238       1         2084011 530       751137 132       Vanadum       1         2084011 530       751137 132       Vanadum       1         2084011 530       751137 132       Zinc       1         2084011 530       751137 132       Zinc       1		CG47-003	2084102 832		Uranum-235	0 2 6 0	0 241	0 12	4.5	6.5	8	1900	pC1/g
2084102 832       750900 030       Vanadium       1         2084011 530       751137 132       Barium       6         2084011 530       751137 132       Copper       6         2084011 530       751137 132       Uranium-234       1         2084011 530       751137 132       Vanadium       1         2084011 530       751137 132       Vanadium       1         2084011 530       751137 132       Zinc       1         2084011 530       751137 132       Zinc       1	1				Uranum-238	2 473	1 540	1 49	4.5	6.5	351	1600	pC1/g
2084011 530       751137 132       Baruum       6         2084011 530       751137 132       Copper       6         2084011 530       751137 132       Uranium-234       1         2084011 530       751137 132       Vanadium       1         2084011 530       751137 132       Vanadium       1         2084011 530       751137 132       Zinc       1         208411 654       751067 076       Aroclor-1254       1		CG47-003	2084102 832		Vanadıum	134 000	0 160	88 49	45	6.5	7150	433	mg/kg
2084011 530       751137 132       Copper         2084011 530       751137 132       Uranium-234         2084011 530       751137 132       Uranium-238         2084011 530       751137 132       Vanadium         2084011 530       751137 132       Zinc         2084011 530       751137 132       Zinc		CG48-004	2084011 530	- 1	Ватит	603 000	000 86	289 38	2.5	4.5	26400	NA	mg/kg
2084011 530       751137 132       Uranıum-234         2084011 530       751137 132       Uranıum-238         2084011 530       751137 132       Vanadıum         2084011 530       751137 132       Zinc         2084171 654       751067 076       Aroclor-1254		CG48-004	2084011 530		Copper	83 400	4 000	38 21	2.5	4.5	40900	NA	mg/kg
2084011 530     751137 132     Uranium-238       2084011 530     751137 132     Vanadium       2084011 530     751137 132     Zinc       2084171 654     751067 076     Aroclor-1254	1	CG48-004	2084011 530	- T	Uranum-234	2 678	I 300	26	2.5	45	300	1800	pCu/g
2084011 530 751137 132 Vanadium 2084011 530 751137 132 Zinc 2084171 654 751067 076 Aroclor-1254		CG48-004	2084011 530		Uranıum-238	2 678	1 300	1 49	2.5	4.5	351	1600	pCt/g
2084011 530 751137 132 Zinc 2084011 654 751067 076 Aroclor-1254		CG48-004	2084011 530		Vanadıum	165 000	31 000	88 49	2.5	45	7150	433	mg/kg
2084171 654 751067 076 Aroclor-1254	1	CG48-004	2084011 530		Zinc	146 000	0006	139 1	2.5	4.5	307000	NA	mg/kg
107 1010 1010 1010 100 1111007		CG48-005	2084171 654	751067 076	Aroclor-1254	42 000	5 200	NA	2.5	45	12400	371000	ug/kg
CG48-005 2084171 654 751067 076 Barrum 6		CG48-005		- 1	Barnum	000 969	000 86	289 38	2.5	4.5	26400	NA	mg/kg

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	mg/kg	pC1/g	mg/kg	ug/kg	mg/kg	mg/kg	pC1/g	pC1/g	pC1/g	mg/kg	ug/kg	pC1/g	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	$pCV_{g}$
Ecological AL	433	1900	NA I	NA	NA I	NA 1	1800	1900	1600	433	NA	1900	NA	101000	NA	433 I	NA	NA	NA	NA 1	NA 1	NA 1	NA	NA 1	1800
WRW AL	7150	76	26400	1970000	962	40900	300	8	351	7150	2040000	9/	26400	19200	40900	7150	2040000	307000	16400000	26400	268	40900	20400	613000	300
Depth End	6.5	0.5	50	0.5	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05
Depth Start	4.5	00	0 0	0.0	0 0	0 0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Background Mean + 2 SD	88 49	0 023	141 260	NA	1 612	18 060	2.3	0 094	2 000	45 590	NA	0 023	141 260	NA	18 060	45 590	NA	73 760	NA	141 260	16 990	18 060	14 910	48 940	23
Detection Limit	31 000	0 03	00 86	85 00	3 00	4 00	0 093	0 19	0 19	31 00	12 00	9600	000 86	6 500	4 000	31 000	13 000	000 6	61 000	000 86	20 000	4 000	12 000	20 000	1 250
Result	103 000	0 04	878 00	150 00	10 10	175 00	3 910	0 63	3 56	105 00	40 00	0 203	520 000	008 6	134 000	235 000	25 000	152 000	73 000	350 000	35 700	62 300	23 000	009 66	3 300
Analyte	Vanadıum	Americium-241	Barrum	bis(2- Ethylhexyl)phthalate	Cadmium	Copper	Uranium-234	Uranium-235	Uranium-238	Vanadıum	Xylene	Americium-241	Barrum	Chloroform	Copper	Vanadıum	Xylene	Zinc	4-Methyl-2-pentanone	Barıum	Chromium	Copper	Nickel	Strontium	Uranum-234
Actual Northing	750994 441	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750928 227	750766 477	750766 477	750766 477	750766 477	750766 477	750766 477	750766 477	750662 186	750662 186	750662 186	750662 186	750662 186	750662 186	750662 186
Actual Easting	2084184 407	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	2083696 625	CE47-022 2083696 625	2083696 625	2083696 625	2083725 533	2083725 533	2083725 533	2083725 533	2083725 533	2083725 533	2083725 533	2083707 065	2083707 065	2083707 065	2083707 065	2083707 065	2083707 065	2083707 065
Location Code	CH48-004	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-022	CE47-023	CE47-023	CE47-023	CE47-023	CE47-023	CE47-023	CE47-023	CE46-001	CE46-001	CE46-001	CE46-001	CE46-001	CE46-001	CE46-001
IHSS/PAC/ UBC Site		Buildings 771 and 776 Tunnel		(All depths start below building slab)				_	_																

Table 3

its	Units	pC1/g	pC1/g	mg/kg	ug/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	$pCV_{\mathcal{B}}$	pC1/g	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg
ction Lim	Ecological AL	1900	1600	433	NA		216	NA	NA	NA	NA	NA	NA	NA	1800	1600	433	NA	NA	800000	NA	NA	NA	NA	NA	NA
ns or Dete	WRW AL	8	351	7150	2040000		22.2	26400	268	40900	307000	3480	20400	613000	300	351	7150	307000	26400	34900	268	3490000	40900	27200000	307000	20400
eviation	Depth End	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard D	Depth Start	0.0	0.0	00	0.0		00	0.0	0.0	0.0	0.0	00	0.0	0.0	00	0 0	0.0	00	00	00	00	00	00	00	0 0	00
s Two Stanc	Background Mean + 2 SD	0 094	2 000	45 590	NA		10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	2 000	45 590	73 760	141 260	NA	16 990	NA	18 060	NA	18037 000	14 910
leans Plu	Detection Limit	0 125	1 250	31 000	12 000		2 000	98 000	20 000	4 000	2190 000	158 000	12 000	20 000	I 040	1 040	31 000	0006	000 86	44 000	20 000	38 000	4 000	44 000	2190 000	12 000
kground M	Result	0 170	3 300	166 000	14 000		12 100	800 000	48 600	154 000	32700 000	477 000	44 800	196 000	2 597	2 597	109 000	116 000	651 000	64 000	52 400	64 000	151 000	140 000	28800 000	43 000
ts Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Uranıum-235	Uranıum-238	Vanadıum	Xylene		Arsenic	Barium	Chromum	Copper	Iron	Manganese	Nickel	Strontum	Uranum-234	Uranıum-238	Vanadıum	Zinc	Barıum	Benzo(a)anthracene	Chromum	Chrysene	Copper	Fluoranthene	Iron	Nickel
IHSS Group 700-4 Characterization Results	Actual Northing	750662 186	750662 186	750662 186	750662 186		751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	751000 938	750965 504	750965 504	750965 504	750965 504	750965 504	750965 504	750965 504	750965 504
Characteriz	Actual Easting	2083707 065	2083707 065	2083707 065	2083707 065		2083529 390	2083529 390	CD48-000 2083529 390	2083529 390	2083529 390	2083529 390	2083529 390	2083529 390	2083529 390	2083529 390	2083529 390	CD48-000 2083529 390	2083535 820	2083535 820	2083535 820	2083535 820	2083535 820	2083535 820	2083535 820	2083535 820
roup 700-4	Location Code	CE46-001	CE46-001	CE46-001	CE46-001		CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-000	CD48-001	CD48-001	CD48-001	CD48-001	CD48-001	CD48-001	CD48-001	CD48-001
IHSS G	IHSS/PAC/ UBC Site					700-150 2(N) - Radioactive Site West of Buildings	<i>771177</i> 6																			

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Actual Easting         Actual Northing           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           2083535 820         750965 504           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88           751004 394         2083597 88	# QQ   QQ	Limit 63 000 20 000 1 460 0 123 1 460 9 000 5 20 4 4 2190	Background Mean + 2 SD NA + 2 SD NA 48 940 2 3 0 094 2 0094 2 000 45 590 73 760 10 090	Depth Start 00 00 00 00 00	Depth End 0.5	WRW AL 22100000	Ecological AL	Units ug/kg
2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88	150 000 141 000 3 724 0 254 3 724 156 000 161 000 164 695 60 163 26800	63 000 20 000 1 460 0 123 1 460 31 000 9 000 5 98 20 4	NA 48 940 2 3 0 094 2 000 45 590 73 760 10 090	00	0.5	22100000	ΝA	ug/kg
2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         2083535 820       750965 504         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88         751004 394       2083597 88           751004 394       2083597 88	141 000 3 724 0 254 3 724 156 000 161 000 104 695 60 60 163 26800	20 000 1 460 0 123 1 460 9 000 5 5 98 20 4 4	2 3 0 094 2 000 45 590 73 760 10 090	00			TANT	0
2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	3 724 0 254 3 724 156 000 161 000 10 4 695 60 163 26800	1460 0 123 1 460 31 000 9 000 5 5 98 20 4 4	2 3 0 094 2 000 45 590 73 760 10 090 141 259	00	0.5	613000	NA	mg/kg
2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	0 254 3 724 156 000 161 000 10 4 695 695 60 163	0 123 1 460 31 000 9 000 5 98 20 4 4	0 094 2 000 45 590 73 760 10 090 141 259	00	0.5	300	1800	pCu/g
2083535 820     750965 504       2083535 820     750965 504       2083535 820     750965 504       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	3 724 156 000 161 000 10 4 695 60 60 163 26800	1460 31000 9 000 5 5 20 4 4	2 000 45 590 73 760 10 090 141 259		0.5	8	1900	pC1/g
2083535 820     750965 504       2083535 820     750965 504       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	156 000 161 000 104 695 60 163 26800	31 000 9 000 5 98 20 20 4 4	73 760 10 090 141 259	00	0.5	351	1600	pC1/g
2083535 820     750965 504       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	161 000 10 4 695 60 60 163 26800	9 000 5 98 20 4 4	73 760 10 090 141 259	0.0	0.5	7150	433	mg/kg
751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	695 60 60 163 26800	5 98 20 4 4 2190	141 259	00	0.5	307000	NA	mg/kg
751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	60 60 163 26800	98 20 4 2190	141 259	00	0.5	22.2	216	mg/kg
751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	163	20 4 2190	16.000	00	0.5	26400	NA	mg/kg
751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	163 26800	4 2190	16 990	0.0	0.5	268	NA	mg/kg
751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88       751004 394     2083597 88	26800	2190	18 060	0.0	0.5	40900	NA	mg/kg
751004 394 2083597 88 751004 394 2083597 88 751004 394 2083597 88	, ,		18037	0.0	50	307000	NA	mg/kg
751004 394 2083597 88 751004 394 2083597 88	38.0	12	14 910	0.0	50	20400	NA	mg/kg
751004 394 2083597 88	146	20	48 940	0.0	90	613000	NA	mg/kg
	41	4	2.9	0.0	0.5	613000	NA	mg/kg
CE48-001 751004 394 2083597 88 Uranium, Total	9 801	5 474	5 98	0.0	0.5	2750	8 / 9	mg/kg
CE48-001 751004 394 2083597 88 Uranium-234	33	1 843	2 253	00	50	300	1800	pC1/g
CE48-001 751004 394 2083597 88 Uranum-235	0 24	0 147	0 094	00	50	8	1900	pC1/g
CE48-001 751004 394 2083597 88 Uranium-238	33	1 843	2	00	0.5	351	1600	pC1/g
CE48-001 751004 394 2083597 88 Vanadium	211	31	45 590	00	0.5	7150	433	mg/kg
CE48-001 751004 394 2083597 88 Zunc	160	6	73 760	00	0.5	307000	NA	mg/kg
CE48-009 2083641 800 751129 707 Arsenic	12 100	2 000	10 090	0.0	0.5	22.2	216	mg/kg
CE48-009 2083641 800 751129 707 Barum	811 000	000 86	141 260	00	0.5	26400	NA	mg/kg
CE48-009 2083641 800 751129 707 Copper	123 000	4 000	18 060	00	0.5	40900	NA	mg/kg
CE48-009 2083641 800 751129 707 Iron	27300 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
CE48-009   2083641 800   751129 707   Nickel	36 400	12 000	14 910	0.0	0.5	20400	NA	mg/kg
CE48-009 2083641 800 751129 707 Strontum	281 000	20 000	48 940	00	0.5	613000	NA	mg/kg
CE48-009   2083641 800   751129 707   Uranum-234	2 112	1310	2 000	00	0.5	300	1800	pCv/g
2083641 800     751129 707     Arse       2083641 800     751129 707     Bar       2083641 800     751129 707     Cop       2083641 800     751129 707     Iron       2083641 800     751129 707     Nicl       2083641 800     751129 707     Stro       2083641 800     751129 707     Stro       2083641 800     751129 707     Stro	123 123 2730 36 2 1			5 000 98 000 4 000 2190 000 12 000 20 000 1 310	5 000     10 090       98 000     141 260       4 000     18 060       2190 000     18037 000       12 000     14 910       20 000     48 940       1 310     2 000	5 000     10 090     00       98 000     141 260     00     0       4 000     18 060     00     0       2190 000     18037 000     00     0       12 000     14 910     00     0       20 000     48 940     00     0       1310     2 000     0     0	5 000     10 090     0 0       98 000     141 260     0 0     0 5       4 000     18 060     0 0     0 5       2190 000     18 050     0 0     0 5       12 000     14 910     0 0     0 5       20 000     48 940     0 0     0 5       1 310     2 000     0 0     0 5	5 000         10 090         0 0         0 5         22 2         21 6           98 000         141 260         0 0         0 5         26400         NA           4 000         18 060         0 0         0 5         40900         NA           2190 000         18037 000         0 0         0 5         307000         NA           12 000         14 910         0 0         0 5         20400         NA           20 000         48 940         0 0         0 5         613000         NA           1 310         2 000         0 0         0 5         300         1800

ER RSOP Notification and Closeout Report IHSS Group 700-4

its	Umts	pC1/g	pC1/g	mg/kg	pCu/g	pC1/g	pCı/g	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg								
ction Lim	Ecological AL	1900	1600	NA	216	NA	1800	1900	1600	433	NA	216	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA						
is or Dete	WRW AL	&	351	307000	22 2	26400	268	40900	307000	3480	20400	613000	300	8	351	7150	307000	22 2	26400	34900	3490	34900	349000	1970000	268	3490000	40900	27200000
viation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ard De	Depth Start	0.0	00	00	00	0.0	00	00	00	00	0.0	00	00	00	00	0.0	0.0	00	00	00	0.0	0.0	00	0.0	0.0	0.0	00	8
Two Stand	Background Mean + 2 SD	0 094	2 000	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	10 090	141 260	NA	NA	NA	NA	NA	16 990	NA	18 060	NA
eans Plus	Detection Limit	980 0	1 310	000 6	5 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 500	0 120	1 500	31 000	000 6	2 000	98 000	44 000	28 000	71 000	77 000	000 62	20 000	39 000	4 000	44 000
Table 3 ackground M	Result	0 198	2 112	84 200	10 900	487 000	39 300	110 000	30200 000	484 000	45 600	223 000	3 997	0 214	3 997	110 000	450 000	13 100	316 000	79 000	91 000	78 000	78 000	290 000	90 200	000 86	108 000	170 000
Greater Than Ba	Analyte	Uranıum-235	Uranıum-238	Zinc	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranum-234	Uranium-235	Uramum-238	Vanadıum	Zinc	Arsenic	Barnum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	bıs(2- Ethylhexyl)phthalate	Chromum	Chrysene	Copper	Fluoranthene
ation Result	Actual Northing	751129 707	751129 707	751129 707	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751140 562	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199		751106 199
IHSS Group 700-4 Characterization Results	Actual Easting	2083641 800	2083641 800	2083641 800	2083609 000	2083609 000	2083609 000	000 6098802	2083609 000	2083609 000	2083609 000	2083609 000	2083609 000	2083609 000	2083609 000	2083609 000	2083609 000	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400
oup 700-4	Location Code	CE48-009	CE48-009	CE48-009	CE48-010	CE48-010	CE48-010	CE48-010	CE48-010		CE48-010	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011	CE48-011						
IHSS Gr	IHSS/PAC/ UBC Site																											

Table 3

mits	al Units	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	bCv/g	pCI/g	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg		ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	
CEIOII EI	Ecological AL	NA	25.6	NA	NA	NA	NA	1800	1900	1600	433	NA	NA	NA	216	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
IS OF DEER	WRW AL	307000	1000	3480	20400	22100000	613000	300	8	351	7150	307000	20400000	40800000	22.2	26400	34900	3490	34900	349000	3490000	268	40900	2950000	27200000	40800000	34900	307000	3480	
eviatio	Depth End	9 0	6.5	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	90	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
ומות ד	Depth Start	00	0.0	00	0.0	00	00	00	00	0.0	0.0	0.0	00	00	00	00	00	0.0	00	00	00	00	00	00	00	00	00	00	00	
I WO Stall	Background Mean + 2 SD	18037 000	54.620	365 080	14 910	NA	48 940	2.3	0 094	2 000	45 590	73 760	NA	NA	10 090	141 260	NA	NA	NA	NA	NA	16 990	18 060	NA	NA	NA	NA	18037 000	365 080	
icalls r lu	Detection Limit	2190 000	7.000	158 000	12 000	64 000	20 000	09L I	0 148	1 760	31 000	000 6	38 000	48 000	2 000	000 86	420	550	089	730	360	20 000	4 000	54 000	420	58 000	470	2190 000	158 000	
ngi omini iv	Result	32600 000	108 000	498 000	58 600	160 000	196 000	2 260	0 216	2 260	94 800	253 000	910 000	4600 000	12 200	192 000	16000	16000	13000	14000	19000	49 500	67 800	2700 000	33000	3600 000	9500	31100 000	368 000	
is Greater I han Background Means Plus I wo Standard Deviations or Detection Limits	Analyte	Iron	Lead	Manganese	Nickel	Pyrene	Strontium	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc	2-Methylnaphthalene	Acenaphthene	Arsenic	Barıum	Benzo(A)anthracene	Benzo(A)pyrene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Chrysene	Chromium	Copper	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-CD)pyrene	Iron	Manganese	
anon mean	Actual Northing	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	751106 199	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	
Cilai actei i	Actual Easting	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083505 400	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	CE48-012 2083630 960	2083630 960	2083630 960	2083630 960	CE48-012 2083630 960	2083630 960	2083630 960	CE48-012 2083630 960	2083630 960	2083630 960	2083630 960	CE48-012 2083630 960	
LESS GFOUD /00-4 Characterization Results GF	Location	CE48-011	CE48-012	CE48-012	CE48-012	CE48-012	CE48-012	CE48-012		CE48-012	CE48-012	CE48-012	CE48-012	CE48-012	CE48-012		CE48-012	CE48-012	CE48-012											
IHSS C	IHSS/PAC/ UBC Site			-																										

<b>t</b> s	Units	ug/kg	mg/kg	ug/kg	mg/kg	pCu/g	pC1/g	pCı/g	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg
ction Limi	Ecological AL	NA	NA	NA	NA	1800	1900	1600	433	NA	NA	NA	21 6	NA	800000	25700	1010000	1010000	2 15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
is or Dete	WRW AL	3090000	20400	22100000	613000	300	8	351	7150	307000	40800000	228000	22 2	26400	34900	3490	34900	349000	921	268	3490000	40900	27200000	34900	307000	20400	20400	22100000	5110
viation	Depth End	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard De	Depth Start	0.0	0.0	00	0.0	00	0.0	00	00	00	00	00	00	0.0	00	00	0.0	0.0	00	00	00	00	00	00	00	00	0.0	00	0.0
s Two Stand	Background Mean + 2 SD	NA	14 910	NA	48 940	23	0 094	2 000	45 590	73 760	NA	16902 000	10 090	141 260	NA	NA	NA	NA	9960	16 990	NA	18 060	NA	NA	18037 000	11 550	14 910	NA	1 224
eans Plus	Detection Limit	45 000	12 000	460	20 000	1 190	0 116	1 190	31 000	0006	55 000	2 500	0 4 5 0	04100	48 000	63 000	77 000	83 000	0 041	0 087	42 000	4 000	48 000	54 000	1 900	0 130	0 220	000 69	0090
Table 3 sckground M	Result	1000 000	44 400	34000	134 000	4 243	0 311	4 243	145 000	125 000	57 000	27000 000	11 000	150 000	150 000	160 000	120 000	170 000	1 300	27 000	220 000	63 300	380 000	94 000	23000 000	14 000	23 000	390 000	1 600
eater Than Ba	Analyte	Naphthalene	Nickel	Pyrene	Strontium	Uranum-234	Uranıum-235	Uramum-238	Vanadıum	Zinc	Acenaphthene	Aluminum	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Beryllıum	Chromum	Chrysene	Copper	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Lıthıum	Nickel	Pyrene	Selenum
ation Result	Actual Northing	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750964 572	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184	750929 184
IHSS Group 700-4 Characterization Results Gr	Actual Easting	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	2083630 960	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740	2083637 740
oup 700-4	Location Code	CE48-012	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011	CE47-011								
IHSS Gr	IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

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IHSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE47-011	2083637 740	750929 184	Strontum	51 000	009 0	48 940	0.0	0.5	613000	NA	mg/kg
	CE47-011	2083637 740	750929 184	Total Uranium	11 20	5 326	5 982	00	0.5	2750	879	mg/kg
	CE47-011	2083637 740	750929 184	Uranum-234	3 771	I 460	23	00	0.5	300	1800	pCv8
	CE47-011	2083637 740	750929 184	Uranium-235	0 304	0 138	0 094	00	0.5	∞	1900	pC1/g
	CE47-011	2083637 740	750929 184	Uranium-238	3 771	1 460	2 000	00	0.5	351	1600	pC1/g
	CE47-011	2083637 740	750929 184	Vanadıum	57 000	0 1 7 0	45 590	00	0.5	7150	433	mg/kg
	CE47-011	2083637 740	750929 184	Zinc	109 000	000 6	73 760	0.0	0.5	307000	NA	mg/kg
	CE47-018	2083542 170	750930 086	Acenaphthene	49 000	48 000	NA	0.0	0.5	40800000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Anthracene	000 86	70 000	NA	00	0.5	204000000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Barıum	702 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE47-018	2083542 170	750930 086	Benzo(a)anthracene	480 000	42 000	NA	0.0	0.5	34900	000008	ug/kg
	CE47-018	2083542 170	750930 086	Benzo(a)pyrene	260 000	55 000	NA	0.0	0.5	3490	25700	ug/kg
	CE47-018	2083542 170	750930 086	Benzo(b)fluoranthene	530 000	000 89	NA	0.0	0.5	34900	1010000	ug/kg
	CE47-018	2083542 170	750930 086	Benzo(k)fluoranthene	480 000	73 000	NA	0.0	0.5	349000	1010000	ug/kg
	CE47-018	2083542 170	750930 086	bis(2- Ethylhexyl)phthalate	160 000	75 000	NA	0.0	0.5	1970000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Chromium	42 100	20 000	16 990	0.0	0.5	268	NA	mg/kg
	CE47-018	2083542 170	750930 086	Chrysene	000 009	36 000	NA	0.0	0.5	3490000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Copper	77 100	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CE47-018	2083542 170	750930 086	Dibenz(a,h)anthracene	120 000	000 29	NA	0.0	0.5	3490	NA	ug/kg
	CE47-018	2083542 170	750930 086	Fluoranthene	1100 000	42 000	NA	00	0.5	27200000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Indeno(1,2,3-cd)pyrene	340 000	47 000	NA	00	0.5	34900	NA	ug/kg
	CE47-018	2083542 170	750930 086	Iron	28600 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
	CE47-018	2083542 170	750930 086	Manganese	505 000	158 000	365 080	00	0.5	3480	NA	mg/kg
	CE47-018	2083542 170	750930 086	Nickel	33 100	12 000	14 910	00	0.5	20400	NA	mg/kg
	CE47-018	2083542 170	750930 086	Pyrene	820 000	000 09	NA	0.0	0.5	22100000	NA	ug/kg
	CE47-018	2083542 170	750930 086	Strontum	160 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CE47-018	CE47-018 2083542 170	750930 086	Uranum-234	3 471	1 430	23	00	0.5	300	1800	pCv/g

Table 3

nits	Units	pCu/g	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	pCv/g	pC1/g	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	
ction Lin	Ecological AL	1900	1600	433	NA	216	NA	800000	25700	NA	NA	NA	NA	NA	NA	NA	1800	1600	433	NA	NA	216	NA	800000	25700	1010000	1010000	NA	NA	
ns or Dete	WRW AL	∞	351	7150	307000	22.2	26400	34900	3490	268	3490000	40900	27200000	20400	22100000	613000	300	351	7150	40800000	204000000	22.2	26400	34900	3490	34900	349000	268	3490000	
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
dard D	Depth Start	00	00	00	0.0	00	00	00	00	0.0	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
s I wo Stan	Background Mean + 2 SD	0 094	2 000	45 590	73 760	10 090	141 260	NA	NA	16 990	NA	18 060	NA	14 910	NA	48 940	23	2 000	45 590	NA	NA	10 090	141 260	NA	NA	NA	NA	16 990	NA	
leans Flu	Detection Limit	0 121	1 430	31 000	9 000	5 000	98 000	42 000	55 000	20 000	36 000	4 000	42 000	12 000	000 09	20 000	1 230	1 230	31 000	48 000	000 69	2 000	98 000	41 000	54 000	67 000	72 000	20 000	36 000	
kground IV	Result	0217	3 471	79 800	309 000	18 200	473 000	26 000	70 000	26 900	70 000	67 200	110 000	17 300	94 000	283 000	2 706	2 706	62 100	93 000	110 000	13 300	675 000	310 000	350 000	260 000	350 000	34 100	360 000	
is Greater I han Background Means Plus I wo Standard Deviations or Detection Limits	Analyte	Uranium-235	Uranium-238	Vanadıum	Zinc	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Chromum	Chrysene	Copper	Fluoranthene	Nickel	Pyrene	Strontium	Uranium-234	Uranıum-238	Vanadıum	Acenaphthene	Anthracene	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromum	Chrysene	
dros Group /00-4 Characterization Results	Actual Northing	750930 086	750930 086	750930 086	750930 086	750894 757	750894 757	750894 757	750894 757	750894 757	750894 757	750894 757	750894 757	750894 757	750894 757	$\neg$	750894 757	750894 757	750894 757	750859 097	750859 097	750859 097	750859 097	750859 097	750859 097		750859 097	750859 097	750859 097	
Characteriz	Actual Easting	2083542 170	2083542 170	2083542 170	2083542 170	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083548 620	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	2083555 130	
6-00/ dno	Location	CE47-018	CE47-018	CE47-018	CE47-018	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-019	CE47-020	CE47-020	CE47-020	CE47-020	CE47-020	CE47-020		CE47-020	CE47-020	CE47-020	
19 cchi	IHSS/PAC/ UBC Site															<b>·</b>			•					<b>-</b>						

	Actual		Analyte	Result	Detection	Background Mean	Depth	Depth	WRW AL	Ecological	Units
Code	Easting	Northing	as francti		Limit	+ 2 SD	Start	End		AL	
CE47-020	2083555 130	750859 097	Copper	151 000	4 000	18 060	00	0.5	40900	NA	mg/kg
CE47-020	2083555 130	750859 097	Fluoranthene	840 000	41 000	NA	00	0.5	27200000	NA	ug/kg
CE47-020	2083555 130	750859 097	Fluorene	61 000	57 000	NA	00	0.5	40800000	NA	ug/kg
CE47-020	2083555 130	750859 097	Indeno(1,2,3-cd)pyrene	220 000	47 000	NA	00	0.5	34900	NA	ug/kg
CE47-020	2083555 130	750859 097	Iron	35300 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
CE47-020	2083555 130	750859 097	Manganese	469 000	158 000	365 080	0.0	0.5	3480	NA	mg/kg
1	2083555 130	750859 097	Nickel	47 100	12 000	14 910	00	0.5	20400	NA	mg/kg
CE47-020	2083555 130	750859 097	Pyrene	290 000	29 000	NA	00	0.5	22100000	NA	ug/kg
CE47-020	2083555 130	750859 097	Strontium	186 000	20 000	48 940	00	0.5	613000	NA	mg/kg
CE47-020	2083555 130	750859 097	Vanadıum	147 000	31 000	45 590	0.0	0.5	7150	433	mg/kg
CE47-020	2083555 130	750859 097	Zınc	167 000	000 6	73 760	00	0.5	307000	NA	mg/kg
CE48-013	2083586 480	751118 234	Acenaphthene	120 000	53 000	NA	00	0.5	40800000	NA	ug/kg
CE48-013	2083586 480	751118 234	Anthracene	180 000	77 000	NA	00	0.5	204000000	NA	ug/kg
CE48-013	2083586 480	751118 234	Arsenic	12 600	2 000	10 090	00	0.5	22 2	216	mg/kg
CE48-013	2083586 480	751118 234	Barıum	240 000	000 86	141 260	00	0.5	26400	NA	mg/kg
CE48-013	2083586 480	751118 234	Benzo(a)anthracene	350 000	46 000	NA	00	0.5	34900	800000	ug/kg
CE48-013	2083586 480	751118 234	Benzo(a)pyrene	350 000	000 09	NA	0.0	0.5	3490	25700	ug/kg
CE48-013	2083586 480	751118 234	Benzo(b)fluoranthene	320 000	74 000	NA	00	0.5	34900	1010000	ug/kg
CE48-013	2083586 480	751118 234	Benzo(k)fluoranthene	360 000	80 000	NA	00	0.5	349000	1010000	ug/kg
CE48-013	2083586 480	751118 234	Chromium	46 600	20 000	16 990	00	0.5	268	NA	mg/kg
CE48-013	2083586 480	751118 234	Chrysene	380 000	40 000	NA	00	0.5	3490000	NA	ug/kg
CE48-013	2083586480	751118 234	Copper	68 500	4 000	18 060	00	0.5	40900	NA	mg/kg
CE48-013	2083586 480	751118 234	Dibenz(a,h)anthracene	000 66	73 000	NA	00	0.5	3490	NA	ug/kg
CE48-013	2083586 480	751118 234	D1-n-octylphthalate	11000 000	250 000	NA	00	0.5	14700000	NA	ug/kg
CE48-013	2083586 480	751118 234	Fluoranthene	840 000	46 000	NA	00	0.5	27200000	NA	ug/kg
CE48-013	2083586 480	751118 234	Fluorene	83 000	64 000	NA	00	0.5	40800000	NA	ug/kg
CE48-013	2083586 480	751118 234	Indeno(1,2,3-cd)pyrene	220 000	52 000	NA	00	0.5	34900	NA	ug/kg
CE48-013	2083586 480	751118 234	Iron	31600 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Umts	mg/kg	mg/kg	ug/kg	mg/kg	pCv/g	pCı/g	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCvg	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg
Ecological AL	NA	NA	NA	NA	1800	1900	1600	433	NA	216	NA	800000	25700	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800	1600	433	NA	NA	NA
WRW AL	3480	20400	22100000	613000	300	8	351	7150	307000	22 2	26400	34900	3490	268	3490000	40900	27200000	307000	3480	20400	22100000	613000	300	351	7150	307000	40800000	204000000
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	00	0.0	0.0	0.0	00	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	00	00	0.0	0.0	0.0	00	00
Background Mean + 2 SD	365 080	14 910	NA	48 940	23	0 094	2 000	45 590	73 760	10 090	141 260	NA	NA	16 990	NA	18 060	NA	18037 000	365 080	14 910	NA	48 940	23	2 000	45 590	73 760	NA	NA
Detection Limit	158 000	12 000	000 99	20 000	1 210	0 088	1 210	31 000	000 6	5 000	000 86	47 000	61 000	20 000	41 000	4 000	47 000	2190 000	158 000	12 000	000 /9	20 000	1 530	1 530	31 000	0006	55 000	80 000
Result	413 000	44 800	680 000	200 000	3 811	0 199	3 811	128 000	181 000	14 800	248 000	55 000	71 000	46 200	71 000	65 800	120 000	33300 000	459 000	47 100	120 000	149 000	6 076	9/09	154 000	173 000	120 000	380 000
Analyte	Manganese	Nickel	Pyrene	Strontrum	Uranum-234	Uranium-235	Uranıum-238	Vanadıum	Zinc	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Chromium	Chrysene	Copper	Fluoranthene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranum-234	Uranium-238	Vanadıum	Zinc	Acenaphthene	Anthracene
Actual Northing	751118 234	751118 234	751118 234	751118 234	751118 234	751118 234	751118 234	751118 234	751118 234	751082 916	751082 916	751082 916	751082 916	751082 916	751082916	751082 916	751082 916	751082 916	751082916	751082 916	751082916	751082 916	751082 916	751082 916	751082 916	751082 916	750976 547	750976 547
Actual Easting	2083586 480	2083586 480	2083586 480	2083586 480	2083586 480	2083586 480	2083586 480	2083586 480	2083586 480	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083577 940	2083597 190	2083597 190
Location Code	CE48-013	CE48-014	CE48-014	CE48-014	CE48-014		CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-014	CE48-015	CE48-015								
IHSS/PAC/ UBC Site																												

IHSS Groun 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

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IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE48-015	2083597 190	750976 547	Arsenic	10 600	5 000	10 090	00	0.5	22 2	216	mg/kg
	CE48-015	2083597 190	750976 547	Barıum	238 000	98 000	141 260	00	0.5	26400	NA	mg/kg
	CE48-015	2083597 190	750976 547	Benzo(a)anthracene	1300 000	48 000	NA	00	0.5	34900	800000	ug/kg
	CE48-015	2083597 190	750976 547	Benzo(a)pyrene	1400 000	62 000	NA	0.0	0.5	3490	25700	ug/kg
	CE48-015	2083597 190	750976 547	Benzo(b)fluoranthene	1300 000	77 000	NA	0.0	0.5	34900	1010000	ug/kg
	CE48-015	2083597 190	750976 547	Benzo(k)fluoranthene	1200 000	83 000	NA	0.0	0.5	349000	1010000	ug/kg
	CE48-015	2083597 190	750976 547	Chromium	62 200	20 000	16 990	00	0.5	268	NA	mg/kg
	CE48-015	2083597 190	750976 547	Chrysene	1500 000	42 000	NA	0.0	0.5	3490000	NA	ug/kg
	CE48-015	2083597 190	750976 547	Copper	74 300	4 000	18 060	00	0.5	40900	NA	mg/kg
	CE48-015	2083597 190	750976 547	Dibenz(a,h)anthracene	290 000	76 000	NA	0.0	0.5	3490	NA	ug/kg
	CE48-015	2083597 190	750976 547	Fluoranthene	2600 000	48 000	NA	0.0	0.5	27200000	NA	ug/kg
	CE48-015	2083597 190	750976 547	Fluorene	110 000	000 99	NA	0.0	0.5	40800000	NA	ug/kg
	CE48-015	2083597 190	750976 547	Indeno(1,2,3-cd)pyrene	780 000	54 000	NA	0.0	0.5	34900	NA	ug/kg
	CE48-015	2083597 190	750976 547	Iron	28700 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CE48-015	2083597 190	750976 547	Nickel	45 700	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CE48-015	2083597 190	750976 547	Pyrene	2400 000	000 69	NA	00	0.5	22100000	NA	ug/kg
	CE48-015	2083597 190	750976 547	Strontium	130 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CE48-015	2083597 190	750976 547	Uranıum-235	0 147	9800	0 094	00	0.5	8	1900	pCı/g
	CE48-015	_	750976 547	Vanadıum	120 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CE48-015	2083597 190	750976 547	Zinc	139 000	0006	73 760	00	0.5	307000	NA	mg/kg
	CE47-012	2083603 580	750941 287	Acenaphthene	950 000	47 000	NA	00	0.5	40800000	NA	ug/kg
	CE47-012	2083603 580	750941 287	Arsenic	10 600	2 000	10 090	0.0	0.5	22.2	216	mg/kg
	CE47-012	2083603 580	750941 287	Barıum	641 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CE47-012	2083603 580	750941 287	Benzo(A)anthracene	22000	410	NA	00	0.5	34900	800000	ug/kg
	CE47-012	-	750941.287	Benzo(A)pyrene	23000	530	NA	00	0.5	3490	25700	ug/kg
	CE47-012	2083603 580	750941 287	Benzo(B)fluoranthene	19000	099	NA	00	0.5	34900	1010000	ug/kg
	CE47-012	2083603 580	750941 287	Bemzo(K)fluoranthene	20000	710	NA	00	0.5	349000	1010000	ug/kg
	CE47-012	2083603 580	750941 287	Chrysene	24000	350	NA	00	0.5	3490000	NA	ug/kg

its	Units	mg/kg	ug/kg	ug/kg	NA	ug/kg	NA	mg/kg	mg/kg	mg/kg	A N	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg
ction Lim	Ecological AL	NA	NA	NA	ug/kg	NA	ug/kg	NA	NA	NA	110/kg	NA	1800	1900	1600	433	NA	NA	NA	NA	NA	800000	25700	1010000	1010000	NA	NA
s or Dete	WRW AL	40900	3490	2950000	NA	40800000	NA	307000	3480	20400	ΑN	613000	300	8	351	7150	307000	20400000	40800000	204000000	26400	34900	3490	34900	349000	268	3490000
viation	Depth End	0.5	0.5	0.5	272000 00	0.5	34900	0.5	0.5	0.5	221000	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard De	Depth Start	00	0.0	0.0	0.5	00	0.5	0.0	0.0	0.0	0.5	00	00	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	00	00	00
s Two Stand	Background Mean + 2 SD	18 060	NA	NA	0.0	NA	0.0	18037 000	365 080	14 910	0.0	48 940	23	0 094	2 000	45 590	73 760	NA	NA	NA	141 260	NA	NA	NA	Ϋ́	16 990	NA
eans Plus	Detection Lamit	4 000	65.000	52 000	NA	26 000	NA	2190 000	158 000	12 000	δN	20 000	1 460	0 127	1 460	31 000	0006	40 000	51 000	74 000	000 86	45 000	28 000	72 000	78 000	20 000	39 000
Table 3 ackground M	Result	93 100	5500.000	330 000	42000	1300 000	16000	000 00699	1680 000	56 100	41000	148 000	3 334	0 186	3 334	203 000	241 000	120 000	000 009	1100 000	799 000	1300 000	1200 000	870 000	970 000	44 600	1300 000
eater Than Ba	Analyte	Copper	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-CD)pyrene	Iron	Manganese	Nickel	Purene	Strontium	Uranium-234	Uranıum-235	Uranıum-238	Vanadıum	Zınc	2-Methylnaphthalene	Acenaphthene	Anthracene	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene
IHSS Group 700-4 Characterization Results Gr	Actual Northing	750941 287	750941 287	750941 287	750941 287	750941 287	750941 287	750941 287	750941 287	750941 287	750041 287	Т		750941 287	750941 287	750941 287	750941 287	750905 490	750905 490	750905 490	750905 490	750905 490		750905 490	750905 490	750905 490	750905 490
Characteriz	Actual Easting	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	083 2092800	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083603 580	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820
roup 700-4	Location	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012	CE47-012		1	CE47-012	CE47-012	CE47-012	CE47-012	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013
IHSS G	IHSS/PAC/ UBC Site				V																						

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	pCu/g	pC1/g	pCı/g	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg
Ecological AL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800	1900	1600	433	NA	NA	NA	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA
WRW AL	40900	3490	2950000	27200000	40800000	34900	307000	3090000	20400	22100000	613000	300	8	351	7150	307000	40800000	204000000	26400	34900	3490	34900	349000	268	3490000	40900	27200000	40800000
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	00	0.0	00	00	00	0.0	00	0.0	0.0	00	0.0	00	00	0.0	00	00	00	00	00	00	00	00	00	00	00	0.0	0.0	00
Background Mean + 2 SD	18 060	NA	NA	NA	NA	NA	18037 000	NA	14910	NA	48 940	23	0 094	2 000	45 590	73 760	NA	NA	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA
Detection Limit	4 000	71 000	57 000	45 000	62 000	20 000	2190 000	48 000	12 000	64 000	20 000	1 590	0 159	1 590	31 000	0006	48 000	000 69	000 86	41 000	54 000	000 29	72 000	20 000	36 000	4 000	41 000	57 000
Result	80 800	400 000	350 000	3400 000	610 000	820 000	37900 000	320 000	40 400	2900 000	287 000	4 383	0 254	4 383	118 000	118 000	240 000	360 000	000 191	950 000	1000 000	820 000	830 000	23 500	1100 000	144 000	2200 000	180 000
Analyte	Copper	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthenc	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Naphthalene	Nickel	Pyrene	Strontium	Uranium-234	Uranıum-235	Uranıum-238	Vanadıum	Zınc	Acenaphthene	Anthracene	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Fluoranthene	Fluorene
Actual Northing	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	750905 490	T	750870 394	750870 394		750870 394	750870 394		750870 394	750870 394	750870 394	750870 394	750870 394
Actual Easting	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083609 820	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360	2083616 360
Location Code	CE47-013	CE47-013	CE47-013	CE47-013		CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	CE47-013	$\neg$	$\neg$	CE47-014	CE47-014	CE47-014	CE47-014		CE47-014	CE47-014	CE47-014	CE47-014	CE47-014
IHSS/PAC/ UBC Site			•	A										- 1		1	•	<b>1</b>	. 1				ı		,	.1		

3	Units	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCv/g
CROII LEIII	Ecological AL	NA	NA	NA	NA	NA	NA	NA	1800	1900	1600	433	NA	NA	NA	216	NA	800000	25700	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800
is or Dete	WRW AL	34900	307000	3480	3090000	20400	22100000	613000	300	8	351	7150	307000	40800000	204000000	22.2	26400	34900	3490	268	3490000	40900	27200000	307000	3480	20400	22100000	613000	300
viation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05
Tarre T	Depth Start	00	0.0	0.0	0.0	00	00	0.0	00	00	0.0	0.0	0.0	0.0	00	00	0.0	00	00	0.0	00	00	00	0.0	0.0	00	00	00	00
	Background Mean + 2 SD	NA	18037 000	365 080	NA	14 910	NA	48 940	2.3	0 094	2 000	45 590	73 760	NA	NA	10 090	141 260	NA	NA	16 990	NA	18 060	NA	18037 000	365 080	14 910	NA	48 940	23
	Detection Limit	47 000	2190 000	158 000	44 000	12 000	29 000	20 000	1370	0 113	1 370	31 000	000 6	49 000	71 000	2 000	000 86	43 000	26 000	20 000	37 000	4 000	43 000	2190 000	158 000	12 000	61 000	20 000	1 490
0	Result	720 000	29000 000	479 000	70 000	36 700	2200 000	203 000	4 007	0 227	4 007	92 000	118 000	62 000	78 000	14 100	727 000	170 000	210 000	42 300	200 000	211 000	420 000	50500 000	1030 000	49 200	480 000	161 000	2 961
The Designation of Courts Annual Livering Annual An	Analyte	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Naphthalene	Nickel	Pyrene	Strontium	Uranum-234	Uranium-235	Uranıum-238	Vanadıum	Zinc	Acenaphthene	Anthracene	Arsenic	Ватит	Benzo(a)anthracene	Benzo(a)pyrene	Chromium	Chrysene	Copper	Fluoranthene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranıum-234
	Actual Northing	750870 394		750870 394	750870 394	$\neg$	- 1	750870 394			750870 394	750870 394	1	$\neg$	750948 167	750948 167	750948 167	750948 167	П	750948 167	750948 167			750948 167	750948 167	- 1	$\neg$	$\neg$	750948 167
	Actual Easting	2083616 360	2083616 360	2083616360	2083616360	2083616 360	2083616360	2083616 360	2083616 360	2083616360	2083616 360	2083616360	2083616 360	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490	2083569 490
•	Location Code	CE47-014	CE47-014	CE47-014	CE47-014	CE47-014	$\neg \neg$	CE47-014	CE47-014	$\neg$	$\overline{}$	CE47-014	CE47-014	$\neg$	CE47-015	CE47-015	$\neg \tau$	$\neg$	$\overline{}$	$\neg$	CE47-015	_	$\neg$	$\neg$	$\neg$	$\neg$	$\neg$		CE47-015
	IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

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IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE47-015	2083569 490	750948 167	Uranium-235	0 192	0 140	0 094	0.0	0.5	8	1900	pC1/g
	CE47-015	2083569 490	750948 167	Uranıum-238	2 961	1 490	2 000	0.0	0.5	351	1600	pC1/g
	CE47-015	2083569 490	750948 167	Vanadıum	180 000	31 000	45 590	0.0	0.5	7150	433	mg/kg
	CE47-015	2083569 490	750948 167	Zinc	239 000	000 6	73 760	0.0	0.5	307000	NA	mg/kg
	CE47-016	2083576 040	750917 939	Barıum	833 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE47-016	2083576 040	750917 939	Benzo(a)anthracene	130 000	42 000	NA	0.0	0.5	34900	000008	ug/kg
	CE47-016	2083576 040	750917 939	Benzo(a)pyrene	140 000	25 000	NA	0.0	0.5	3490	25700	ug/kg
	CE47-016	2083576 040	750917 939	Benzo(b)fluoranthene	110 000	000 89	NA	00	0.5	34900	1010000	ug/kg
	CE47-016	2083576 040	750917 939	Benzo(k)fluoranthene	110 000	74 000	NA	0.0	0.5	349000	1010000	ug/kg
	CE47-016	2083576 040	750917 939	Chrysene	150 000	37 000	NA	00	0.5	3490000	NA	ug/kg
	CE47-016	2083576 040	750917 939	Copper	234 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CE47-016	2083576 040	750917 939	Fluoranthene	250 000	42 000	NA	00	0.5	27200000	NA	ug/kg
	CE47-016	2083576 040	750917 939	Indeno(1,2,3-cd)pyrene	76 000	48 000	NA	0.0	0.5	34900	NA	ug/kg
	CE47-016	2083576 040	750917 939	Pyrene	250 000	61 000	NA	0.0	0.5	22100000	NA	ug/kg
	CE47-016	_	750917 939	Strontium	338 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CE47-016	2083576 040	750917 939	Uranium-234	4 600	1 860	23	00	0.5	300	1800	pCv/g
	CE47-016	2083576 040	750917 939	Uranıum-235	0310	0 170	0 094	0.0	0.5	8	1900	pC1/g
-	CE47-016	CE47-016 2083576 040	750917 939	Uranıum-238	4 600	1 860	2 000	00	0.5	351	1600	pCı/g
	CE47-016	2083576 040	750917 939	Vanadıum	101 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CE47-016	2083576 040	750917 939	Zinc	154 000	0006	73 760	00	0.5	307000	NA	mg/kg
	CE47-017	2083582 470	750882 553	Arsenic	10 800	2 000	10 090	00	0.5	22.2	21 6	mg/kg
	CE47-017	2083582 470	750882 553	Barıum	638 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE47-017	2083582 470	750882 553	Benzo(a)anthracene	180 000	43 000	NA	0.0	0.5	34900	000008	ug/kg
	CE47-017	2083582 470	750882 553	Benzo(a)pyrene	210 000	26 000	NA	0.0	0.5	3490	25700	ug/kg
	CE47-017	2083582 470	750882 553	Benzo(b)fluoranthene	180 000	000 69	NA	00	0.5	34900	1010000	ug/kg
-	CE47-017	2083582 470	750882 553	Benzo(k)fluoranthene	190 000	75 000	NA	0.0	0.5	349000	1010000	ug/kg
	CE47-017	2083582 470	750882 553	Chromium	55 400	20 000	16 990	0.0	0.5	268	NA	mg/kg
	CE47-017	2083582 470	750882 553	Chrysene	220 000	37 000	NA	00	0.5	3490000	NA	ug/kg

라 -	Units	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCı/g	mg/kg	pCvg	pC1/g	pC1/g	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg									
	Ecological AL	NA	NA	NA	NA	NA	NA	NA	1900	433	NA	216	NA	1800	1900	1600	433	NA	NA	NA	NA	000008	25700						
IS OF Dete	WRW AL	40900	27200000	34900	307000	20400	22100000	613000	∞	7150	307000	22.2	26400	268	40900	307000	3480	20400	613000	300	8	351	7150	307000	40800000	204000000	26400	34900	3490
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Tala D	Depth Start	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
S I WU DLAIN	Background Mean + 2 SD	18 060	NA	NA	18037 000	14910	NA	48 940	0 094	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	NA	NA	141 260	NA	NA
Icanis I iu	Detection Limit	4 000	43 000	48 000	2190 000	12 000	61 000	20 000	0 087	31 000	0006	5 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	I 530	0 122	1 530	31 000	0006	47 000	98 000	000 86	41 000	53 000
nground iv	Result	147 000	440 000	120 000	35300 000	43 200	370 000	132 000	0 119	154 000	135 000	11 000	312 000	30 400	58 900	47600 000	787 000	46 500	309 000	3 560	0 195	3 560	98 300	162 000	000 09	70 000	694 000	180 000	200 000
INSS Group 700-4 Characterization Results Greater Than Dackground Means Fius I wo Standard Deviations of Detection Linux	Analyte	Copper	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Nickel	Pyrene	Strontium	Uranium-235	Vanadıum	Zinc	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranium-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc	Acenaphthene	Anthracene	Barıum	Benzo(a)anthracene	Benzo(a)pyrene
ation nesun	Actual Northing	750882 553	750882 553	750882 553	750882 553	750882 553	750882 553	750882 553	750882 553	750882 553	750882 553	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751130 541	751095 089	751095 089	751095 089	751095 089	751095 089
Cilai actei 12	Actual Eastung	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083582 470	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083537 710	2083544 060	2083544 060	2083544 060	2083544 060	2083544 060
Loor dno	Location Code	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE47-017	CE48-016	CE48-017	CE48-017	CE48-017	CE48-017	CE48-017												
IN COLLI	IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Ecological Units	NA mg/kg	1800 pCvg		1900 pCı/g	1900 pCı/g 1600 pCı/g					0																		
WRW AL	613000	300		8	351	8 351 7150	8 351 7150 307000	8 351 7150 307000 22.2	8 351 7150 307000 22.2 26400																			<del>                                     </del>
Depth Depth Start End	00 05	00 05	-	0.0	0																							
Mean St. + 2 SD	-	23 0	0 094 0		2 000 0															<del></del>		<del></del>			<del></del>		<del>-                                     </del>	<del></del>
Detection Dail Limit	20 000	00I I	£60 0		1 100	1 100 31 000	1 100 31 000 9 000	1 100 31 000 9 000 5 000	31 000 9 000 5 000 98 000	31 000 9 000 5 000 98 000 41 000	1 100 31 000 9 000 5 000 98 000 41 000 53 000	1 100 31 000 9 000 5 000 41 000 53 000 66 000	1100 31000 9000 5000 98000 41000 53000 66000	1 100 31 000 9 000 5 000 41 000 53 000 66 000 71 000	1100 31000 9000 5000 41000 53000 66000 71000 36000	1 100 31 000 9 000 5 000 41 000 53 000 66 000 71 000 20 000 36 000 4 000	1 100 31 000 5 000 98 000 41 000 53 000 66 000 71 000 20 000 36 000 4 000 4 1000	1 100 31 000 9 000 5 000 41 000 71 000 71 000 20 000 36 000 41 000 41 000							<del>- - - - - - - - - - - - - - - - - - - </del>			<del>- - - - - - - - - - - - - - - - - - - </del>
Result	155 000	3 114	0 132		3 114	3 114	3 114 154 000 169 000	3 114 154 000 169 000 16 900	3 114 154 000 169 000 16 900 729 000	3 114 154 000 169 000 16 900 729 000 110 000	3 114 154 000 169 000 16 900 729 000 110 000 140 000	3 114 154 000 169 000 16 900 729 000 110 000 140 000 120 000	3 114 154 000 169 000 16 900 729 000 110 000 140 000 120 000 130 000	3 114 154 000 169 000 16 900 729 000 110 000 120 000 130 000 55 400	3 114 154 000 169 000 16 900 729 000 110 000 120 000 120 000 130 000 55 400	3 114 154 000 169 000 16 900 729 000 110 000 140 000 120 000 130 000 55 400 150 000 68 900	3 114 154 000 169 000 16 900 729 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000	3 114 154 000 169 000 16 900 729 000 110 000 140 000 120 000 130 000 55 400 150 000 68 900 270 000	3 114 154 000 169 000 16 900 729 000 110 000 110 000 120 000 150 000 68 900 270 000 79 000	3 114 154 000 169 000 16 900 729 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000 40300 000	3 114 154 000 169 000 16 900 729 000 110 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000 40300 000 60 000	3 114 154 000 169 000 16 900 729 000 110 000 110 000 120 000 55 400 150 000 68 900 69 000 60 000 60 000	3 114 154 000 169 000 16 900 729 000 110 000 120 000 150 000 150 000 150 000 150 000 179 000 40300 000 60 000 692 000 270 000	3 114 154 000 16 900 16 900 1729 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000 40300 000 692 000 47 700 230 000	3 114 154 000 169 000 16 900 729 000 110 000 110 000 120 000 55 400 150 000 68 900 68 900 79 000 40300 000 692 000 47 700 250 000 2 134	3 114 154 000 169 000 16 900 729 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000 47 700 692 000 692 000 230 000 2 134 0 154 000	3 114 154 000 16 900 16 900 110 000 110 000 120 000 130 000 55 400 150 000 68 900 270 000 40300 000 692 000 692 000 230 000 230 000 2 134 0 169	3 114 154 000 169 000 16 900 110 000 110 000 120 000 130 000 60 000 60 000 60 000 270 000 40300 000 60 000 2134 130 000
Analyte	Strontium	Uranium-234	Uranıum-235	Uranıum-238		Vanadıum	Vanadıum Zınc	Vanadıum Zınc Arsenic	Vanadıum Zınc Arsenic Barıum	Vanadıum Zınc Arsenıc Barıum Berzo(a)anthracene	Vanadıum Zinc Arsenic Barıum Benzo(a)anthracene	Vanadıum Zınc Arsenıc Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene	Vanadıum Zinc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Chromium	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Chromium Chrysene	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Chromium Chrysene	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Chromium Chrysene Copper	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Chromium Chrysene Chromium Chrysene Choper Fluoranthene	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Chromium Chrysene Chrysene Indeno(1,2,3-cd)pyrene Iron	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Chromium Chrysene Copper Fluoranthene Lindeno(1,2,3-cd)pyrene Iron	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Chrysene Choper Indeno(1,2,3-cd)pyrene Iron Lead Manganese	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Chrysene Choper Fluoranthene Indeno(1,2,3-cd)pyrene Iron Lead Manganese	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Chromium Chrysene Chrysene Copper Fluoranthene Indeno(1,2,3-cd)pyrene Iron Lead Manganese Nickel	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Chrysene Chrysene Indeno(1,2,3-cd)pyrene Iron Lead Manganese Nickel Pyrene Strontum	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Chrysene Indeno(1,2,3-cd)pyrene Iron Iron Iron Manganese Nickel Pyrene Strontium Uranıum-234	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Copper Fluoranthene Iron Lead Manganese Nickel Pyrene Strontium Uranıum-234 Uranıum-235	Vanadıum Zinc Arsenic Barıum Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b)fluoranthene Chromium Chromium Chrysene Copper Iron Iron Lead Manganese Nickel Nickel Pyrene Strontum Uranıum-234 Uranıum-235 Uranıum-238	Vanadıum Zınc Arsenic Barıum Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Chromium Chrysene Chrysene Indeno(1,2,3-cd)pyrene Iron Iron Lead Manganese Nickel Nickel Strontium Uranıum-234 Uranıum-235 Uranıum-238
Actual Northing	751059 651 S	751059 651 L	751059 651 L	751059 651 L	751059 651		751059 651 Z		1 1 1			1																
Actual Easting	2083550 490	2083550 490	2083550 490	2083550 490	2083550 490		2083550 490																					
Location Code	CE48-018 2	CE48-018   2	CE48-018 2	CE48-018 2	CE48-018 2	CE48-018 2		CE48-019 2																				
UBC Site					-	-		,																				

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	mg/kg	pCu/g	pC1/g	pC1/g	mg/kg	mg/kg	mg/kg	pCv8	pC1/g	pCı/g	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	pCv/g	mg/kg	ug/kg	mg/kg
Ecological AL	8 29	1800	1900	1600	-		8 29	1800	1900	1600	433	8 / 9	1800	1900	1600	•	-	211000				256	ı	3800		128000	8 29
WRW AL	2750	300	8	351	26400	40900	2750	300	8	351	7150	2750	300	8	351	840000	16400000	102000000	26400	0000261	40900	1000	3090000	20	613000	31300000	2750
Depth End	59	59	6.5	6.5	1.5	1.5	15	15	1.5	1.5	1.5	2.5	2.5	2.5	2.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	15	1.5	1.5	15
Depth Start	4.5	45	4.5	4.5	1	1	1	1	1	1	1	15	15	1.5	1.5	1	1	1	1	1	1	1	1	I	1	1	1
Background Mean + 2 SD	3 04	2 64	0 12	1 49	289 38	38 21	3 04	2 64	0 12	1 49	88 49	3 04	2 64	0 12	1 49		•	211000	_	-	-	25 6		3800	_	128000	879
Detection Limit	195	I 89	0 12	1 89	000 86	4 000	5 018	069 I	0 142	1 690	31 000	6 556	2 207	0 175	2 207	5 000	000 05	100 000	000 86	000 1.	4 000	7 000	2 000	0 022	20 000	2 000	3 840
Result	13 585	4 574	0 158	4 574	564	113	12 177	4 1	0 27	41	154	18 117	19	0.27	61	170	8	460	748	440	43 1	32.7	8.7	0 632	264	13	5 643
Analyte	Uranium, Total	Uranium-234	Uranıum-235	Uranıum-238	Barıum	Copper	Uranum, Total	Uranum-234	Uranium-235	Uranıum-238	Vanadıum	Uransum, Total	Uranium-234	Uranıum-235	Uranium-238	1,4-Dichlorobenzene	4-Methyl-2-pentanone	Acetone	Barıum	bıs(2- Ethylhexyl)phthalate	Copper	Lead	Naphthalene	Plutonium-239/240	Strontium	Toluene	Uranum, Total
Actual Northing	751033 594	751033 594	751033 594	751033 594	750985 237	750985 237	750985 237	750985 237	750985 237	750985 237	_	750985 237	750985 237	750985 237	750985 237	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428	751003 428
Actual Easting	2083496 008	2083496 008	2083496 008	2083496 008	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083740 600	2083769 687	2083769 687	2083769 687	2083769 687	2083769 687	2083769 687	2083769.687	2083769 687	2083769 687	2083769 687	2083769 687	2083769 687
Location	CE48-023	CE48-023	CE48-023	CE48-023	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-022	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024	CF48-024
IHSS/PAC/ UBC Site														_	-												

ER RSOP Notification and Closeout Report IHSS Group 700-4

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

	Units	pCı/g	pC1/g	pCı/g	mg/kg	ug/kg	pC1/g	ug/kg	2000	ug/kg	mø/kø	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	bCu/g	ug/kg
	Ecological AL	1900	1900	1600	433	NA	1900	NA	371000	NA NA	216	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	008€	NA
	WRW AL	8	8	351	7150	40800000	9/	204000000	10,400	12400	22.2	26400	34900	3490	34900	349000	268	3490000	40900	3490	27200000	40800000	34900	307000	3090000	20400	50/116	22100000
	Depth End	1.5	1.5	1.5	1.5	0.5	0.5	0.5	30	0.5	0.5		0.5	50	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Depth Start	1	1	1	1	0.0	0 0	0.0	ć	00	00	00	0.0	00	0 0	0.0	0.0	0.0	0 0	00	00	0.0	00	00	00	0.0	00	00
Doologund	Dackground Mean + 2 SD	1900	1900	1600	433	NA	0 023	NA	V.	NA	10 090	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	NA	NA	18037 000	NA	14 910	9900	NA
	Detection Limit	0 212	6 369	1 293	31 000	49 000	0 395	71 000	700	5 300	5 000	000 86	43 000	26 000	000 69	75 000	20 000	37 000	4 000	000 89	43 000	59 000	48 000	2190 000	46 000	12 000	0 395	61 000
	Result	0 242	0 15	19	129	130 000	505 0	190 000	27 000	17 000	11 000	581 000	490 000	230 000	450 000	480 000	42 000	530 000	34 400	160 000	1200 000	000 86	350 000	27800 000	49 000	34 900	7 321	1200 000
	Analyte	Uranıum-235	Uranıum-235	Uranium-238	Vanadıum	Acenaphthene	Americium-241	Anthracene	Arcolor 1257	Araclar-1260	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Naphthalene	Nickel	Plutonium-239/240	Pyrene
	Actual Northing	751003 428	751003 428	751003 428	751003 428	751091 815	751091 815	751091 815	751001 815	$\top$	1	1	751091 815	751091 815	751091815	751091 815	751091 815	751091 815	751091 815	751091 815	751091 815	751091 815	751091815	751091 815	751091 815	751091 815	751091 815	751091815
	Actual Easting	2083769 687	2083769 687	2083769 687	2083769 687	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120	2084304 120
	Location	CF48-024	CF48-024	CF48-024	CF48-024	CH48-005	CH48-005	CH48-005	CH48 005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005	CH48-005
	IHSS/PAC/ UBC Site					700-163 1 -	Radioactive	of Building	774 (Area 3)	M asii Aica																		

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

COTT	oo doo			0								
IHSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CH48-005	2084304 120	751091 815	Strontium	152 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CH48-005	2084304 120	751091 815	Vanadıum	120 000	31 000	45 590	0.0	0.5	7150	433	mg/kg
	CH48-005	2084304 120	751091 815	Zinc	96 400	000 6	73 760	0.0	0.5	307000	NA	mg/kg
	CH48-006	2084268 290	751088 041	2-Methylnaphthalene	150 000	38 000	NA	0.0	0.5	20400000	NA	ug/kg
	CH48-006		751088 041	Acenaphthene	1100 000	49 000	NA	0.0	0.5	40800000	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Americium-241	1 291	0 491	0 023	0.0	0.5	76	1900	pC1/g
	CH48-006	2084268 290	751088 041	Anthracene	1200 000	71 000	NA	00	0.5	204000000	NA	ug/kg
	CH48-006		751088 041	Aroclor-1254	96 000	4 700	NA	0.0	0.5	12400	371000	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Aroclor-1260	49 000	5 300	NA	0.0	0.5	12400	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Barıum	688 000	98 000	141 260	0.0	0.5	26400	NA	mg/kg
	CH48-006	2084268 290	751088 041	Benzo(a)anthracene	3100 000	42 000	NA	0.0	0.5	34900	800000	ug/kg
	CH48-006		751088 041	Benzo(a)pyrene	2900 000	55 000	NA	0.0	0.5	3490	25700	ug/kg
	CH48-006	2084268 290	751088 041	Benzo(b)fluoranthene	2600 000	000 89	NA	0.0	0.5	34900	1010000	ug/kg
	CH48-006	2084268 290	751088 041	Benzo(k)fluoranthene	2600 000	74 000	NA	0.0	0.5	349000	1010000	ug/kg
	CH48-006	2084268 290	751088 041	bis(2- Ethylhexyl)phthalate	95 000	76 000	NA	0.0	0.5	1970000	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Butylbenzylphthalate	100 000	000 02	NA	0.0	0.5	147000000	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Chromium	31 400	20 000	16 990	00	0.5	268	NA	mg/kg
	CH48-006	CH48-006 2084268 290	751088 041	Chrysene	3500 000	37 000	NA	0.0	0.5	3490000	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Copper	54 900	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CH48-006	2084268 290	751088 041	Drbenz(a,h)anthracene	620 000	000 29	NA	0.0	0.5	3490	NA	ug/kg
	CH48-006	2084268 290	751088 041	Dibenzofuran	320 000	54 000	NA	0.0	0.5	2950000	NA	ug/kg
	CH48-006	2084268 290	751088 041	Dr-n-octylphthalate	61 000	57 000	NA	00	0.5	14700000	NA	ug/kg
	CH48-006	2084268 290	751088 041	Fluoranthene	8000 000	85 000	NA	0.0	0.5	27200000	NA	ug/kg
	CH48-006	CH48-006 2084268 290	751088 041	Fluorene	260 000	29 000	NA	0.0	0.5	40800000	NA	ug/kg
	CH48-006	2084268 290	751088 041	Indeno(1,2,3-cd)pyrene	1800 000	48 000	NA	00	0.5	34900	NA	ug/kg
	CH48-006	2084268 290	751088 041	Iron	25800 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
	CH48-006	2084268 290	751088 041	Manganese	368 000	158 000	365 080	00	0.5	3480	NA	mg/kg

Table 3

Units		ug/kg	mg/kg	pCv/g	ug/kg	mg/kg	pCv/g	pCı/g	pCı/g	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCu/g
Ecological	ΨF	NA	NA	3800	NA	NA	1800	1900	1600	433	NA	NA	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800
WRW AL		3090000	20400	50/116	22100000	613000	300	8	351	7150	307000	204000000	26400	34900	3490	34900	349000	268	3490000	40900	3490	27200000	34900	307000	3480	20400	22100000	613000	300
Depth	End	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth	Start	00	00	00	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Background Mean	+2SD	NA	14 910	0 066	NA	48 940	23	0 094	2 000	45 590	73 760	NA	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	NA	18037 000	365 080	14 910	NA	48 940	23
Detection	Lımit	46 000	12 000	0 491	120 000	20 000	1410	0 107	1 410	31 000	0006	000 69	98 000	42 000	54 000	000 29	72 000	20 000	36 000	4 000	000 99	42 000	47 000	2190 000	158 000	12 000	000 09	20 000	1710
Result		350 000	34 200	13 671	7300 000	165 000	3 508	0 293	3 508	88 400	274 000	83 000	617 000	260 000	310 000	210 000	240 000	36 700	330 000	99 100	85 000	530 000	180 000	34000 000	561 000	37 700	490 000	170 000	3 919
Analyte		Naphthalene	Nickel	Plutonium-239/240	Pyrene	Strontium	Uranium-234	Uranıum-235	Uranium-238	Vanadıum	Zinc	Anthracene	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranıum-234
Actual	Northing	751088 041	751088 041	751088 041	751088 041	751088 041	751088 041	751088 041	751088 041	751088 041	751088 041	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745	751083 745
Actual	Easting	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084268 290	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380	2084232 380
Location	Code	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-006	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007	CH48-007
IHSS/PAC/	UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	pC1/g	pCı/g	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	pCv/g	pCı/g	pCı/g	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg
Ecological AL	1900	1600	433	NA	21 6	NA	800000	25700	NA	NA	NA	NA	NA	NA	NA	NA	NA	1800	1900	1600	433	NA	NA	NA	800000	NA	NA	NA
WRW AL	8	351	7150	307000	22 2	26400	34900	3490	268	3490000	40900	27200000	307000	3480	20400	22100000	613000	300	8	351	7150	307000	20400000	26400	34900	268	40900	307000
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	00	0.0	0 0	0.0	00	0.0	00	0.0	0 0	0.0	0.0	0.0	0.0	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Background Mean + 2 SD	0 094	2 000	45 590	73 760	10 090	141 260	NA	NA	16 990	NA	18 060	NA	18037 000	365 080	14 910	NA	48 940	23	0 094	2 000	45 590	73 760	NA	141 260	NA	16 990	18 060	18037 000
Detection Limit	0 142	1 710	31 000	000 6	5 000	000 86	44 000	27 000	20 000	38 000	4 000	44 000	2190 000	158 000	12 000	63 000	20 000	I 400	0 134	1 400	31 000	000 6	36 000	000 86	40 000	20 000	4 000	2190 000
Result	0 219	3 919	126 000	148 000	14 800	599 000	93 000	59 000	48 700	73 000	99 700	170 000	30700 000	438 000	43 300	130 000	138 000	2 869	0 231	2 869	123 000	104 000	290 000	790 000	79 000	27 100	98 300	28100 000
Analyte	Uranıum-235	Uranıum-238	Vanadıum	Zinc	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Chromium	Chrysene	Copper	Fluoranthene	Iron	Manganese	Nickel	Pyrene	Strontium	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc	2-Methylnaphthalene	Barnum	Benzo(a)anthracene	Chromium	Copper	Iron
Actual Northing	751083 745	751083 745	751083 745	751083 745	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751120 857	751117 138	751117 138	751117 138	751117 138	751117 138	751117 138
Actual Easting	2084232 380	2084232 380	2084232 380	2084232 380	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084282 640	2084246 910	2084246910	2084246 910	2084246 910	2084246 910	2084246 910
Location	CH48-007	CH48-007	CH48-007	CH48-007	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-008	CH48-009	CH48-009	CH48-009	CH48-009	CH48-009	CH48-009
IHSS/PAC/ UBC Site				- 1										•								•			•			

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

	oo daa				-8-							
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Umts
	CH48-009	2084246 910	751117 138	Naphthalene	000 09	43 000	NA	00	0.5	3090000	NA	ug/kg
	CH48-009	2084246 910	751117 138	Nickel	36 300	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CH48-009	2084246 910	751117 138	Strontium	301 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CH48-009	2084246 910	751117 138	Uranum-234	2 453	1 430	23	00	0.5	300	1800	pCv/g
	CH48-009	2084246 910	751117 138	Uranium-235	0 172	0 121	0 094	0.0	0.5	8	1900	pC1/g
	CH48-009	2084246 910	751117 138	Uranıum-238	2 453	1 430	2 000	0.0	0.5	351	1600	pCı/g
	CH48-009	2084246 910	751117 138	Vanadıum	67 500	31 000	45 590	0.0	0.5	7150	433	mg/kg
	CH48-009	2084246 910	751117 138	Zinc	94 100	000 6	73 760	0.0	0.5	307000	NA	mg/kg
	CH48-010	2084212 010	751112 810	Barıum	260 000	98 000	141 260	0.0	0.5	26400	NA	mg/kg
	CH48-010	2084212 010	751112 810	Copper	70 700	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CH48-010	2084212 010	751112 810	Strontium	231 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CH48-010	2084212 010	751112 810	Uranum-234	2 773	1 510	23	00	0.5	300	1800	pCv/g
	CH48-010	2084212 010	751112 810	Uranıum-235	0 234	0 121	0 094	0.0	0.5	8	1900	pCı/g
	CH48-010	2084212 010	751112 810	Uranium-238	2 773	1 510	2 000	0.0	0.5	351	1600	pC1/g
	CH48-010	2084212 010	751112 810	Vanadıum	155 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CH48-011	2084297 270	751154 026	Acenaphthene	29 000	51 000	NA	0.0	0.5	40800000	NA	ug/kg
	CH48-011	2084297 270	751154 026	Americium-241	0 437	0 324	0 023	0.0	0.5	9/	1900	pC1/g
	CH48-011	2084297 270	751154 026	Anthracene	86 000	74 000	NA	0.0	0.5	204000000	NA	ug/kg
	CH48-011	2084297 270	751154 026	Aroclor-1254	80 000	4 900	NA	0.0	0.5	12400	371000	ug/kg
	CH48-011	2084297 270	751154 026	Arsenic	11 100	5 000	10 090	0.0	0.5	22.2	216	mg/kg
	CH48-011	2084297 270	751154 026	Barıum	616 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CH48-011	2084297 270	751154 026	Benzo(a)anthracene	230 000	44 000	NA	0.0	0.5	34900	800000	ug/kg
	CH48-011	2084297 270	751154 026	Benzo(a)pyrene	250 000	28 000	NA	00	0.5	3490	25700	ug/kg
	CH48-011	2084297 270	751154 026	Benzo(b)fluoranthene	200 000	72 000	NA	00	0.5	34900	1010000	ug/kg
	CH48-011	2084297 270	751154 026	Benzo(k)fluoranthene	230 000	77 000	AN	00	0.5	349000	1010000	ug/kg
	CH48-011	2084297 270	751154 026	Chromium	37 400	20 000	16 990	00	0.5	268	NA	mg/kg
	CH48-011	2084297 270	751154 026	Chrysene	270 000	39 000	NA	00	0.5	3490000	NA	ug/kg
	CH48-011	CH48-011 2084297 270	751154 026	Copper	88 400	4 000	18 060	00	0.5	40900	NA	mg/kg

Table 3

its	Units	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	pCv/g	ug/kg	mg/kg	mg/kg	pC1/g	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg
ction Lım	Ecological AL	NA	NA	NA	NA	NA	3800	NA	NA	NA	1900	433	NA	371000	21 6	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA
s or Dete	WRW AL	27200000	34900	307000	3480	20400	20/116	22100000	5110	613000	8	7150	307000	12400	22 2	26400	34900	3490	34900	349000	268	3490000	40900	27200000	34900	307000	3480	20400	22100000
eviation	Depth End	0.5	0.5	0.5	0.5	0.5	9.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
lard De	Depth Start	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	00	0.0	0.0	00	0.0	0.0	00	00	00	00	00
s Two Stanc	Background Mean + 2 SD	NA	NA	18037 000	365 080	14 910	0 066	NA	1 224	48 940	0 094	45 590	73 760	NA	10 090	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	18037 000	365 080	14 910	NA
leans Plu	Detection Limit	44 000	20 000	2190 000	158 000	12 000	0 324	64 000	1 000	20 000	0 085	31 000	000 6	4 600	5 000	98 000	43 000	26 000	000 69	74 000	20 000	37 000	4 000	43 000	48 000	2190 000	158 000	12 000	61 000
kground M	Result	600 000	140 000	34300 000	540 000	45 700	6 774	540 000	1 540	136 000	0 164	137 000	109 000	18 000	12 900	659 000	120 000	140 000	100 000	130 000	34 100	130 000	45 000	280 000	83 000	26500 000	372 000	35 000	210 000
s Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Plutonium-239/240	Pyrene	Selenium	Strontium	Uranium-235	Vanadıum	Zinc	Aroclor-1254	Arsenic	Barıum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Fluoranthene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nıckel	Pyrene
IHSS Group 700-4 Characterization Results	Actual Northing	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751154 026	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902	751149 902
Characteriz	Actual Easting	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084297 270	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430	2084261 430
oup 700-4	Location Code	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-011	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012	CH48-012
IHSS GI	IHSS/PAC/ UBC Site			,																									

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

IHSS/PAC/	Location	Actual	Actual	Analyte	Result	Detection	Background	Depth	Depth	WRW AL	Ecological	Unite
UBC Site	Code	Easting	Northing			Limit	+ 2 SD	Start	End	11 MIL AL	ΨΓ	
	CH48-012	2084261 430	751149 902	Strontium	181 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CH48-012	2084261 430	751149 902	Uranum-234	3 267	1 520	23	00	0.5	300	008I	pCv/g
	CH48-012	2084261 430	751149 902	Uranıum-235	0 164	0 128	0 094	00	0.5	8	1900	pC1/g
	CH48-012	2084261 430	751149 902	Uranıum-238	3 267	1 520	2 000	0.0	0.5	351	1600	pC1/g
		2084261 430	751149 902	Vanadıum	104 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CH48-012	2084261 430	751149 902	Zinc	102 000	000 6	73 760	00	0.5	307000	NA	mg/kg
	CH48-013	2084225 810	751146 003	Barıum	659 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CH48-013	2084225 810	1	Copper	86 900	4 000	18 060	00	0.5	40900	NA	mg/kg
	CH48-013	2084225 810	751146 003	Uranıum-234	4 264	1 510	2.3	00	0.5	300	1800	pCu/g
	CH48-013	2084225 810	751146 003	Uranium-235	0 199	0 112	0 094	0.0	0.5	8	1900	pCı/g
	CH48-013	2084225 810	751146 003	Uranıum-238	4 264	1 510	2 000	0.0	0.5	351	1600	pCı/g
	CH48-013	2084225 810	751146 003	Vanadıum	129 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CH48-014	2084190 140	751141 918	Aroclor-1254	13 000	4 600	NA	0.0	0.5	12400	371000	ug/kg
	CH48-014	2084190 140	751141 918	Barıum	899 000	98 000	141 260	0.0	0.5	26400	NA	mg/kg
	CH48-014	2084190 140	751141 918	Copper	95 600	4 000	18 060	00	0.5	40900	NA	mg/kg
	CH48-014	2084190 140	751141 918	Strontium	290 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CH48-014		751141 918	Uranum-234	4 696	1 680	23	00	0.5	300	1800	pCv/g
	CH48-014	2084190 140	751141 918	Uranıum-235	0 309	0 129	0 094	0.0	0.5	8	1900	pC1/g
	CH48-014	2084190 140	751141 918	Uranıum-238	4 696	1 680	2 000	00	0.5	351	1600	pC1/g
	CH48-015	2084154 330	751137 920	Arsenic	13 900	5 000	10 090	0.0	0.5	22.2	216	mg/kg
	CH48-015	2084154 330	751137 920	Barnum	276 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CH48-015	2084154 330	751137 920	Соррег	141 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
		2084154 330		Iron	72600 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CH48-015	2084154 330	- 1	Manganese	1580 000	158 000	365 080	00	0.5	3480	NA	mg/kg
	CH48-015	2084154330	- 1	Uranıum-234	3 071	1 540	23	00	0.5	300	1800	pCv/g
	_	2084154 330	- 1	Uranium-235	0 235	0 128	0 094	00	0.5	8	1900	pC1/g
	CH48-015	2084154 330	751137 920	Uranıum-238	3 071	1 540	2 000	00	0.5	351	1600	pCı∕g
	CH48-015	CH48-015 2084154 330	751137 920	Vanadium	196 000	31 000	45 590	00	0.5	7150	433	mg/kg

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

Units	mg/kg	ug/kg	ug/kg	pC1/g	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	pCv/g	ug/kg	mg/kg	pCu/g	pC1/g	pC1/g
Ecological AL	NA	NA	NA	1900	NA	371000	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3800	NA	NA	1800	1900	1600
WRW AL	307000	20400000	40800000	76	204000000	12400	26400	34900	3490	34900	349000	268	3490000	40900	3490	2950000	27200000	40800000	34900	307000	3090000	20400	911/05	22100000	613000	300	8	351
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	90	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	00	0.0	0.0	00	0.0	00	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	0.0	00	0.0	00
Background Mean + 2 SD	73 760	NA	NA	0 023	NA	NA	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	NA	NA	NA	18037 000	NA	14 910	0 006	NA	48 940	2.3	0 094	2 000
Detection Limit	000 6	41 000	52 000	0 436	75 000	5 000	000 86	45 000	59 000	73 000	79 000	20 000	39 000	4 000	72 000	58 000	45 000	62 000	51 000	2190 000	49 000	12 000	0 436	92 000	20 000	1 440	0 117	1 440
Result	284 000	110 000	510 000	0 902	260 000	46 000	000 809	1100 000	1100 000	910 000	1000 000	37 400	1300 000	137 000	200 000	210 000	3700 000	360 000	620 000	23800 000	320 000	32 100	10 526	2800 000	156 000	4 329	0 241	4 329
Analyte	Zinc	2-Methylnaphthalene	Acenaphthene	Americium-241	Anthracene	Aroclor-1254	Barnum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Naphthalene	Nickel	Plutonium-239/240	Pyrene	Strontium	Uranum-234	Uranium-235	Uranium-238
Actual Northing	751137 920	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774	751186 774
Actual Easting	2084154 330	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760	2084311 760
Location	CH48-015	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	СН49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000	CH49-000
IHSS/PAC/ UBC Site																												

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

			_	Rackaromad					
Actual Northing	Analyte	Result	Detection Limit	Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
751186 774	Vanadıum	112 000	31 000	45 590	0.0	0.5	7150	433	mg/kg
751186 774	Zinc	132 000	000 6	73 760	00	0.5	307000	NA	mg/kg
751182 874	Acenaphthene	210 000	51 000	NA	0.0	0.5	40800000	NA	ug/kg
751182 874	Americium-241	1 061	0 544	0 023	0.0	0.5	9/	1900	pC1/g
751182 874	Anthracene	240 000	73 000	NA	0.0	0.5	204000000	NA	ug/kg
751182 874	Aroclor-1254	000 62	4 900	NA	0.0	0.5	12400	371000	ug/kg
751182 874	Arsenic	12 400	2 000	10 090	00	0.5	22.2	216	mg/kg
751182 874	Barıum	710 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
751182874	Benzo(a)anthracene	280 000	44 000	NA	0.0	0.5	34900	800000	ug/kg
751182 874	Benzo(a)pyrene	620 000	58 000	NA	0.0	0.5	3490	25700	ug/kg
751182 874	Benzo(b)fluoranthene	480 000	71 000	NA	0.0	0.5	34900	1010000	ug/kg
751182 874	Benzo(k)fluoranthene	640 000	77 000	NA	0.0	0.5	349000	1010000	ug/kg
	bis(2- Fthylbexyl)nhthalate	000 011	000 62	ΑN	0.0	50	1970000	٩Z	nolka
751182 874	Chromium	49 000	20 000	16 990	00	0.5	268	NA	mg/kg
751182 874	Chrysene	920 000	38 000	NA	0.0	0.5	3490000	NA	ug/kg
751182 874	Copper	148 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
751182 874	Dibenz(a,h)anthracene	120 000	70 000	NA	0.0	0.5	3490	NA	ug/kg
751182 874	Dibenzofuran	000 19	26 000	NA	0.0	0.5	2950000	NA	ug/kg
751182 874	Fluoranthene	1800 000	44 000	NA	0.0	0.5	27200000	NA	ug/kg
751182 874	Fluorene	150 000	61 000	NA	0.0	0.5	40800000	NA	ug/kg
751182 874	Indeno(1,2,3-cd)pyrene	370 000	50 000	NA	0.0	0.5	34900	NA	ug/kg
751182 874	Iron	31300 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
751182 874	Manganese	000 009	158 000	365 080	0.0	0.5	3480	NA	mg/kg
751182 874	Naphthalene	70 000	47 000	NA	0.0	0.5	3090000	NA	ug/kg
751182 874	Nickel	41 100	12 000	14 910	0.0	0.5	20400	NA	mg/kg
751182 874	Plutonium-239/240	11 813	0 544	9900	00	0.5	50/116	3800	pCvg
751182 874	Pyrene	1200 000	63 000	NA	0.0	0.5	22100000	NA	ug/kg
minimizata in incincia incincia di la	_ 1		Zinc Acenaphthene Americium-241 Anthracene Aroclor-1254 Arsenic Barium Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2- Ethylhexyl)phthalate Chromium Chrysene Copper Chromium Chrysene Copper Dibenz(a,h)anthracene Dibenz(a,c)anthracene Indeno(1,2,3-cd)pyrene Iron Manganese Naphthalene Nickel Plutonum-2390240 Pyrene	Zinc         132 000           Acenaphthene         210 000           Anthracene         240 000           Aroclor-1254         79 000           Arsenic         12 400           Barium         710 000           Benzo(a)anthracene         580 000           Benzo(a)pyrene         620 000           Benzo(b)fluoranthene         480 000           Benzo(k)fluoranthene         640 000           Benzo(k)fluoranthene         640 000           Chrysene         650 000           Chrysene         650 000           Copper         148 000           Dibenzofuran         67 000           Fluoranthene         1800 000           Iron         1300 000           Manganese         600 000           Nickel         41 100           Plutonum-239/240         11 813           Pyrene         1200 000	Zinc         132 000         9 000           Acenaphthene         210 000         51 000           Anthracene         240 000         73 000           Arcolor-1254         79 000         4 900           Arsenic         12 400         5 000           Barum         710 000         98 000           Benzo(a)pyrene         620 000         5 000           Benzo(b)fluoranthene         480 000         77 000           Benzo(k)fluoranthene         640 000         77 000           Benzo(k)fluoranthene         640 000         77 000           Benzo(k)fluoranthene         650 000         79 000           Chrysene         650 000         38 000           Chrysene         650 000         38 000           Chrysene         650 000         30 000           Fluoranthene         120 000         44 000           Fluoranthene         120 000         56 000           Iron         11000         50 000           Iron         11000         12 000           Manganese         600 000         12 000           Nickel         41 100         12 000           Plutonuum-239/240         11 81 100         12 000	Zinc         132 000         9 000         73 760           Acenaphthene         210 000         51 000         NA           Americum-241         1 061         0 544         0 023           Anthracene         240 000         73 000         NA           Aroclor-1254         79 000         4 900         NA           Arsenic         12 400         5 000         10 090           Barnum         710 000         98 000         141 260           Benzo(a)pyrene         580 000         44 000         NA           Benzo(b)fluoranthene         620 000         77 000         NA           Benzo(b)fluoranthene         640 000         77 000         NA           Benzo(b)fluoranthene         640 000         77 000         NA           Benzo(b)fluoranthene         640 000         77 000         NA           Chrysene         650 000         38 000         NA           Chrysene         650 000         18 060           Dibenz(a,h)anthracene         120 000         70 000         NA           Fluoranthene         1800 000         56 000         NA           Fluoranthene         150 000         56 000         NA           Iron	Zanc         132 000         5000         73 760         00           Acenaphthene         210 000         51 000         NA         00           Anntracene         240 000         73 000         NA         00           Anthracene         240 000         73 000         NA         00           Arcclor-1254         79 000         73 000         NA         00           Arsenc         12 400         5 000         10 090         00           Barium         710 000         98 000         141 260         00           Benzo(a)anthracene         580 000         44 000         NA         00           Benzo(b)fluoranthene         480 000         71 000         NA         00           Benzo(k)fluoranthene         640 000         77 000         NA         00           Chrysene         650 000         79 000         NA         00           Chrysene         650 000         38 000         NA         00           Chrysene         650 000         79 000         NA         00           Dibenzofuran         1800 000         70 000         NA         00           Fluorente         1800 000         1800         NA         0	Zinc         Jigono         9000         73760         00         05           Acenaphthene         210 000         51 000         NA         00         05           Americum-241         1 061         0 544         0 023         00         05           Anthracene         240 000         73 000         NA         00         05           Arcolor-1254         79 000         4900         NA         00         05           Arsenic         12 400         5 000         10 090         0         0           Barum         710 000         98 000         141 260         0         0           Benzo(a)anthracene         580 000         44 000         NA         0         0           Benzo(b)fluoranthene         620 000         58 000         NA         0         0         0           Benzo(b)fluoranthene         640 000         71 000         NA         0         0         0           Benzo(b)fluoranthene         640 000         77 000         NA         0         0         0           Chyster         10000         70 000         16 990         0         0         0           Chyster         640 000         70 000	Zunc         Jacobithene         132 000         9 000         73 760         0 5         397000         NA           Acenaphthene         210 000         51 000         NA         0 0         0 5         4080000         NA           Anthracenum-241         210 000         13 0544         0 0         0 5         24000000         NA           Anthracenum-242         240 000         13 0540         NA         0 0         0 5         2400000         NA           Arsenic         12 400         5 000         10 090         0 0         0 5         12400         371000           Arsenic         12 400         5 000         10 090         0 0         0 5         12400         371000           Barraci(a)Bartum         710 000         98 000         141 260         0 0         0 5         226400         NA           Benzo(a)Byrene         580 000         141 260         0 0         0 5         34900         80000           Benzo(b)fluoranthene         620 000         580 000         NA         0 0         0 5         34900         NA           Benzo(b)fluoranthene         640 000         77 000         NA         0 0         0 5         34900         NA

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg	ug/kg	pCı/g	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	$pCV_g$
Ecological AL	NA	1800	1900	1600	433	NA	NA	1900	NA	371000	NA	216	NA	800000	25700	1010000	1010000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3800
WRW AL	613000	300	8	351	7150	307000	40800000	76	204000000	12400	12400	22.2	26400	34900	3490	34900	349000	268	3490000	40900	3490	27200000	40800000	34900	307000	3480	20400	50
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05
Depth Start	00	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	0.0	00	0.0	0.0	00	00	0.0	0.0	0.0	00	0.0	0.0	00
Background Mean + 2 SD	48 940	23	0 094	2 000	45 590	73 760	NA	0 023	NA	NA	NA	10 090	141 260	NA	NA	NA	NA	16 990	NA	18 060	NA	NA	NA	NA	18037 000	365 080	14 910	9900
Detection Limit	20 000	1 690	0 133	1 690	31 000	0006	51 000	0 226	73 000	4 900	5 500	2 000	000 86	44 000	58 000	71 000	77 000	20 000	38 000	4 000	70 000	44 000	61 000	50 000	2190 000	158 000	12 000	0 074
Result	174 000	3 120	0 189	3 120	97 100	282 000	000 06	0 453	110 000	65 000	74 000	13 000	610 000	370 000	380 000	350 000	330 000	56 400	430 000	101 000	110 000	880 000	63 000	230 000	30600 000	405 000	38 700	0 260
Analyte	Strontium	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc	Acenaphthene	Americium-241	Anthracene	Aroclor-1254	Aroclor-1260	Arsenic	Barium	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Plutonsum-239/240
Actual Northing	751182 874	751182 874	751182 874	751182 874	751182 874	751182 874	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066		751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066	751190 066
Actual Easting	2084275 820	2084275 820	2084275 820	2084275 820	2084275 820	2084275 820	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	CH49-002 2084255 123	2084255 123	2084255 123	2084255 123	2084255 123	СН49-002   2084255 123
Location Code	CH49-001	CH49-001	CH49-001	CH49-001	CH49-001	CH49-001	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002		CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	CH49-002	СН49-002
IHSS/PAC/ UBC Site																												

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits Table 3

	*				0					-		
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CH49-002	2084255 123	751190 066	Pyrene	830 000	63 000	NA	00	0.5	22100000	NA	ug/kg
	CH49-002	2084255 123	751190 066	Strontium	148 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CH49-002	2084255 123	751190 066	Vanadrum	143 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CH49-002	2084255 123	751190 066	Zinc	180 000	0 610	73 760	0 0	0.5	307000	NA	mg/kg
	CH49-003	2084206 550	751164 908	Arsenic	11 300	2 000	10 090	0.0	0.5	22.2	21 6	mg/kg
	CH49-003	2084206 550	751164 908	Barıum	618 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CH49-003	2084206 550	751164 908	Chromium	40 600	20 000	16 990	00	0.5	268	NA	mg/kg
	CH49-003	2084206 550	751164 908	Copper	76 300	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CH49-003	2084206 550	751164 908	Iron	28400 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CH49-003	2084206 550	751164 908	Nickel	37 300	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CH49-003	2084206 550	751164 908	Strontium	128 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CH49-003	2084206 550	751164 908	Uranium-234	2 736	1 610	23	00	0.5	300	1800	pCvg
	CH49-003	2084206 550	751164 908	Uranium-235	0 258	0 145	0 094	0.0	0.5	8	1900	pC1/g
	CH49-003	2084206 550	751164 908	Uranıum-238	2 736	1 610	2 000	00	0.5	351	1600	pC1/g
	CH49-003	2084206 550	751164 908	Vanadıum	135 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CH49-003	2084206 550	751164 908	Zinc	97 300	0006	73 760	0.0	0.5	307000	NA	mg/kg
	CH49-004	2084218 870	751207 841	Acenaphthene	100 000	50 000	NA	00	0.5	40800000	NA	ug/kg
	CH49-004	2084218 870	751207 841	Americium-241	0 882	0 503	0 023	0.0	0.5	9/	1900	pC1/g
	CH49-004	2084218 870	751207 841	Anthracene	150 000	72 000	NA	0.0	0.5	204000000	NA	ug/kg
	CH49-004	2084218 870	751207 841	Aroclor-1254	86 000	4 800	NA	0.0	0.5	12400	371000	ug/kg
	CH49-004	2084218 870	751207 841	Aroclor-1260	29 000	5 300	NA	00	0.5	12400	NA	ug/kg
	CH49-004	2084218 870	751207 841	Arsenic	10 900	2 000	10 090	00	0.5	22 2	21 6	mg/kg
	CH49-004	2084218 870	751207 841	Barıum	731 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CH49-004	2084218 870	751207 841	Benzo(a)anthracene	440 000	43 000	NA	00	0.5	34900	800000	ug/kg
	CH49-004	2084218 870	751207 841	Benzo(a)pyrene	460 000	26 000	NA	00	0.5	3490	25700	ug/kg
	CH49-004	2084218 870	751207 841	Benzo(b)fluoranthene	390 000	000 69	NA	00	0.5	34900	1010000	ug/kg
	CH49-004	2084218 870	751207 841	Benzo(k)fluoranthene	440 000	75 000	NA	00	0.5	349000	1010000	ug/kg
	CH49-004	2084218 870	751207 841	Chromium	44 200	20 000	16 990	00	0.5	268	NA	mg/kg

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	pCv/g	ug/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pC1/g	mg/kg
Ecological AL	NA	NA	NA	NA	NA	NA	NA	NA	NA	3800	NA	NA	1800	1900	1600	433	NA		NA	NA	NA		NA	NA	1900	433
WRW AL	3490000	40900	3490	27200000	40800000	34900	307000	3480	20400	50	22100000	613000	300	8	351	7150	307000		26400	268	40900	307000	20400	613000	8	7150
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	00	00	0.0	00	0.0	0.0	00	0.0	0.0	00	0.0	0.0	00	0.0	0.0	0.0	0.0		0.0	00	0.0	0.0	0.0	0.0	0.0	00
Background Mean + 2 SD	NA	18 060	NA	NA	NA	NA	18037 000	365 080	14 910	9900	NA	48 940	23	0 094	2 000	45 590	73 760		141 260	16 990	18 060	18037 000	14 910	48 940	0 094	45 590
Detection Limit	37 000	4 000	000 89	43 000	000 09	49 000	2190 000	158 000	12 000	0 503	62 000	20 000	1 720	0 135	1 720	31 000	0006		000 86	20 000	4 000	2190 000	12 000	20 000	0 167	31 000
Result	490 000	82 700	000 06	1300 000	79 000	290 000	28600 000	411 000	35 800	10 366	830 000	169 000	3 438	0 265	3 438	131 000	168 000		787 000	48 800	142 000	26800 000	35 700	152 000	0312	199 000
Analyte	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Manganese	Nickel	Plutonium-239/240	Pyrene	Strontium	Uranium-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc		Barium	Chromium	Copper	Iron	Nickel	Strontium	Uranıum-235	Vanadıum
Actual Northing	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841	751207 841		751144 198	751144 198	751144 198	751144 198	751144 198	751144 198	751144 198	751144 198
Actual Easting	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870	2084218 870		2083690 363	2083690 363	2083690 363	2083690 363	2083690 363	2083690 363	2083690 363	2083690 363
Location Code	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004	CH49-004		CE48-008							
IHSS/PAC/ UBC Site																		700-150 1 - Radioactive Site North of Building 771								

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

							Declaration					
IHSS/PAC/ UBC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Mean +2SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CE48-008	2083690 363	751144 198	Zinc	130 000	000 6	73 760	00	0.5	307000	NA	mg/kg
	CE48-020	2083638 880	751148 925	Arsenic	16 500	2 000	10 090	0.0	0.5	22.2	21 6	mg/kg
	CE48-020	2083638 880	751148 925	Barıum	999	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE48-020	2083638 880	751148 925	Chromium	33 300	20 000	16 990	0.0	0.5	268	NA	mg/kg
	CE48-020	2083638 880	751148 925	Copper	67 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CE48-020	2083638 880	751148 925	Iron	35600 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CE48-020	2083638 880	751148 925	Manganese	366 000	158 000	365 080	0.0	0.5	3480	NA	mg/kg
	CE48-020	2083638 880	751148 925	Nickel	20 000	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CE48-020	2083638 880	751148 925	Strontium	209 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CE48-020	2083638 880	751148 925	Uranum-234	4 778	2 880	2.3	00	0.5	300	1800	pCv/g
	CE48-020	2083638 880	751148 925	Uranium-238	4 778	2 880	2 000	0.0	0.5	351	1600	pC1/g
	CE48-020	2083638 880	751148 925	Vanadıum	91 900	31 000	45 590	0.0	0.5	7150	433	mg/kg
	CE48-021	2083674 709	751144 933	Barıum	844 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE48-021	2083674 709	751144 933	Chromium	20 100	20 000	16 990	0.0	0.5	268	NA	mg/kg
	CE48-021	2083674 709	751144 933	Copper	009 59	4 000	18 060	00	0.5	40900	NA	mg/kg
	CE48-021	2083674 709	751144 933	Iron	24600 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CE48-021	2083674 709	751144 933	Nickel	27 200	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CE48-021	2083674 709	751144 933	Strontum	295 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CE48-021	2083674 709	751144 933	Uranum-234	4 365	1840	2.3	00	0.5	300	1800	pCv/g
	CE48-021	2083674 709	751144 933	Uranium-235	0 251	0 129	0 094	0.0	0.5	8	1900	pCı∕g
	CE48-021	2083674 709	751144 933	Uranium-238	4 365	1 840	2 000	00	0.5	351	1600	pC1/g
	CE49-001	2083624 420	751181 970	Barıum	917 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CE49-001	2083624 420	751181 970	Chromium	34 500	20 000	16 990	00	0.5	268	NA	mg/kg
	CE49-001	2083624 420	751181 970	Copper	100 000	4 000	18 060	00	0.5	40900	NA	mg/kg
	CE49-001	2083624 420	751181 970	Iron	30700 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
	CE49-001	2083624 420	751181 970	Manganese	000 009	158 000	365 080	0.0	0.5	3480	NA	mg/kg
	CE49-001	2083624 420	751181 970	Nickel	34 100	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	CE49-001	2083624 420	751181 970	Strontum	303 000	20 000	48 940	00	0.5	613000	NA	mg/kg

Table 3

HSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Lumits

Units	pCu/g	pC1/g	mg/kg	pCvg	pCı/g	pCı/g	mg/kg	pCvg	pC1/g	mg/kg	mg/kg	mg/kg																
Ecological AL	1800	1600	433	NA	1800	1900	1600	433	NA	008I	1600	433	NA	NA														
WRW AL	300	351	7150	307000	26400	268	40900	307000	3480	20400	613000	300	8	351	7150	307000	26400	268	40900	307000	3480	20400	613000	300	351	7150	307000	26400
Depth End	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5
Depth Start	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	0.0	00	00	0.0	00	00
Background Mean + 2 SD	23	2 000	45 590	73 760	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	2 000	45 590	73 760	141 260
Detection Limit	1 260	1 260	31 000	0006	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 750	0 178	1 750	31 000	0006	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 890	1 890	31 000	0006	98 000
Result	2 251	2 251	27 000	80 900	000 60/	44 000	63 900	36900 000	572 000	35 700	244 000	3 746	0 230	3 746	96 500	98 300	835 000	44 700	95 100	30500 000	000 689	41 600	239 000	5 052	5 052	63 200	379 000	000 509
Analyte	Uranum-234	Uranıum-238	Vanadıum	Zinc	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranium-234	Uranıum-235	Uranıum-238	Vanadıum	Zinc	Barnum	Chromium	Copper	Iron	Manganese	Nickel	Strontium	Uranum-234	Uranıum-238	Vanadıum	Zinc	Barrum
Actual Northing	751181 970	751181 970	751181 970	751181 970	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751168 089	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751210 967	751173 715
Actual Easting	2083624 420	2083624 420	2083624 420	2083624 420	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083650 888	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083646 300	2083696 240
Location Code	CE49-001	CE49-001	CE49-001	CE49-001	CE49-002	CE49-003	CE49-004																					
IHSS/PAC/ UBC Site																					•					•		

Table 3

HSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

						1 4					
Eg A	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Dackground Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
208	2083696 240	751173 715	Copper	149 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
CE49-004 20	2083696 240	211 821182	Uranıum-234	<i>SLI 9</i>	1 430	2.3	00	50	300	008I	pCv/g
20	2083696 240	751173 715	Urantum-235	0 338	0 124	0 094	0.0	0.5	8	1900	pC1/g
7	2083696 240	751173 715	Urantum-238	6 175	1 430	2 000	0.0	0.5	351	1600	pC1/g
2	2083696 240	751173 715	Vanadıum	214 000	31 000	45 590	0.0	50	1150	433	mg/kg
2	2083682 020	751206 724	Barıum	200 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
1	CE49-005 2083682 020	751206 724	Chromium	42 300	20 000	16 990	0.0	0.5	268	NA	mg/kg
	2083682 020	751206 724	Copper	006 88	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	2083682 020	751206 724	Iron	31200 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CE49-005 2083682 020	751206 724	Manganese	289 000	158 000	365 080	0.0	0.5	3480	NA	mg/kg
	2083682 020	751206 724	Nickel	39 900	12 000	14 910	0.0	0.5	20400	NA	mg/kg
	2083682 020	751206 724	Strontium	276 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
	CE49-005 2083682 020	751206 724	Uranum-234	3 923	1 530	23	00	0.5	300	008I	pCv/g
CE49-005	2083682 020	751206 724	Uranium-235	0 328	0 152	0 094	0.0	0.5	8	1900	pC1/g
CE49-005	2083682 020	751206 724	Uranium-238	3 923	1 530	2 000	0.0	0.5	351	1600	pCv/g
CE49-005	2083682 020	751206 724	Vanadıum	95 600	31 000	45 590	0.0	0.5	7150	433	mg/kg
CE49-005	2083682 020	751206 724	Zinc	412 000	0006	73 760	0.0	0.5	307000	NA	mg/kg
CE49-006	2083732 180	751169 396	Barıum	974 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CE49-006 2083732 180	751169 396	Copper	81 800	4 000	18 060	0.0	0.5	40900	NA	mg/kg
CE49-006	2083732 180	751169 396	Iron	32100 000	2190 000	18037 000	00	0.5	307000	NA	mg/kg
CE49-006	2083732 180	751169 396	Manganese	000 999	158 000	365 080	00	0.5	3480	NA	mg/kg
	CE49-006 2083732 180	751169 396	Nickel	37 600	12 000	14 910	0.0	0.5	20400	NA	mg/kg
CE49-006	2083732 180	751169 396	Strontrum	361 000	20 000	48 940	00	0.5	613000	NA	mg/kg
CE49-006	2083732 180	751169 396	Uranum-234	4 564	0161	23	00	0.5	300	008I	pCv/g
CE49-006	2083732 180	751169 396	Uranium-235	0 247	0 197	0 094	0.0	0.5	8	1900	pC1/g
CE49-006	2083732 180	751169 396	Uranium-238	4 564	1 910	2 000	0.0	0.5	351	1600	pC1/g
	CE49-006 2083732 180	751169 396	Zinc	87 400	000 6	73 760	0.0	0.5	307000	NA	mg/kg
	CE49-007 2083720 658	751210 142	Barnum	613 000	000 86	141 260	00	0.5	26400	NA NA	mg/kg

Table 3

SIES	l Units	mg/kg	pCv/g	pCı/g	mg/kg	pCv/g	pC1/g	mg/kg	pCvg																				
	Ecological AL	NA	NA	NA	25.6	NA	NA	NA	1800	1600	433	NA	NA	NA	NA	NA	NA	1800	1600	433	216	NA	1800						
	WRW AL	268	40900	307000	1000	3480	20400	613000	300	351	7150	307000	26400	40900	20400	613000	613000	300	351	7150	22 2	26400	268	40900	307000	3480	20400	613000	300
	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Depth Start	0 0	00	00	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	Background Mean + 2 SD	16 990	18 060	18037 000	54.620	365 080	14 910	48 940	23	2 000	45 590	73 760	141 260	18 060	14 910	48 940	NA	23	2 000	45 590	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23
	Detection Limit	20 000	4 000	2190 000	7 000	158 000	12 000	20 000	I 440	1 440	31 000	000 6	000 86	4 000	12 000	20 000	4 000	1 810	1 810	31 000	2 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 600
	Result	54 200	240 000	25800 000	63 900	407 000	35 000	215 000	3 201	3 201	102 000	431 000	772 000	43 900	37 500	328 000	4 540	3 670	3 670	104 000	21 000	000 829	30 700	169 000	42200 000	926 000	57 700	241 000	3 533
	Analyte	Chromium	Copper	Iron	Lead	Manganese	Nickel	Strontium	Uranium-234	Uranium-238	Vanadıum	Zinc	Barrum	Copper	Nickel	Strontum	Tın	Uranum-234	Uranium-238	Vanadıum	Arsenic	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontum	Uranum-234
	Actual Northing	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751210 142	751161 121	751161 121	751161 121	751161 121	751161 121	751161 121	751161 121	751161 121	751160 778	751160 778	751160 778	751160 778	751160 778	751160 778	751160 778	751160 778	751160 778
	Actual Easting	2083720 658	2083720 658	2083720 658	2083720.658	2083720 658	2083720 658	2083720 658	2083720 658	2083720 658	2083720 658	2083720 658	2083803 550	2083803 550	2083803 550	2083803 550	2083803 550	2083803 550	2083803 550	2083803 550	2083840 368	2083840 368	2083840 368	2083840 368	2083840 368	2083840 368	2083840 368	2083840 368	2083840 368
	Location Code	CE49-007	CF48-014	CF48-015																									
ALLOS OLOUP 700-4 Chalacter ization results	IHSS/PAC/ UBC Site						•	•		•	•	A		•	•	,		'	<b>.</b>						•		<del></del>		

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pCvg	pC1/g	pCı/g	mg/kg	pC1/g	mg/kg																
Ecological AL	1600	433	NA	21.6	NA	NA	1800	1900	1600	433	216	NA	1900	433	NA													
WRW AL	351	7150	307000	22.2	26400	40900	300	8	351	7150	22.2	26400	268	40900	307000	3480	20400	613000	8	7150	307000	26400	268	40900	307000	3480	20400	613000
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	0.0	00	0.0	00	0.0	00	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	00	00	00	0.0	0.0	0.0	0.0	0.0	0.0	00
Background Mean + 2 SD	2 000	45 590	73 760	10.090	141 260	18 060	23	0 094	2 000	45 590	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	0 094	45 590	73 760	141 260	16 990	18 060	18037 000	365 080	14 910	48 940
Detection Limit	1 600	31 000	0006	5.000	000 86	4 000	1 720	0 139	1 720	31 000	5 000	98 000	20 000	4 000	2190 000	158 000	12 000	20 000	0 099	31 000	0006	98 000	20 000	4 000	2190 000	158 000	12 000	20 000
Result	3 533	130 000	106 000	22 800	682 000	79 500	4 626	0 248	4 626	121 000	11 700	825 000	34 200	115 000	32600 000	623 000	38 100	271 000	0 128	97 700	111 000	796 000	28 700	94 400	29400 000	420 000	36 100	294 000
Analyte	Uranıum-238	Vanadıum	Zinc	Arsemc	Barıum	Copper	Uranum-234	Uranıum-235	Uranium-238	Vanadıum	Arsenic	Barıum	Chromum	Copper	Iron	Manganese	Nickel	Strontium	Uranium-235	Vanadıum	Zinc	Barıum	Chromum	Copper	Iron	Manganese	Nickel	Strontium
Actual Northing	751160 778	751160 778	751160 778	751164 972	751164 972	751164 972	751164 972	751164 972	751164 972	751164 972	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751198 358	751194 007	751194 007	751194 007	751194 007	751194 007	751194 007	751194 007
Actual Easting	2083840 368	2083840 368	2083840 368	2083767 890	2083767 890	2083767 890	2083767 890	2083767 890	2083767 890	2083767 890	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083753 470	2083789 140	2083789 140	2083789 140	2083789 140	2083789 140	2083789 140	2083789 140
Location	CF48-015	CF48-015	CF48-015	CF49-000	CF49-001	CF49-002																						
IHSS/PAC/ UBC Site				<b></b>			·					·																

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pCv/g	pC1/g	pC1/g	mg/kg	pCv8	pC1/g	pCI/g	mg/kg	pCv/g	pCv/g																		
Ecological AL	1800	1900	1600	433	NA	21 6	NA	1800	1900	1600	433	NA	216	NA	0081	1600												
WRW AL	300	8	351	7150	307000	22.2	26400	268	40900	307000	3480	20400	613000	300	8	351	7150	307000	22.2	26400	268	40900	307000	3480	20400	613000	300	351
Depth End	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5
Depth Start	00	0.0	0.0	0.0	0.0	00	00	00	0.0	0.0	0.0	0.0	0.0	00	0.0	00	00	0.0	0.0	00	00	0.0	00	00	00	00	00	00
Background Mean + 2 SD	23	0 094	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	2 000
Detection Limit	1 610	0 161	1 610	31 000	000 6	5 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 970	0 138	1 970	31 000	0006	2 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	2 020	2 020
Result	4 051	0 213	4 051	70 000	84 300	13 300	845 000	51 500	116 000	36200 000	926 000	42 900	258 000	3 742	0 226	3 742	94 500	156 000	14 300	791 000	41 700	185 000	35000 0000	760 000	48 200	273 000	4 554	4 554
Analyte	Uranum-234	Uranium-235	Uranium-238	Vanadıum	Zinc	Arsenic	Barnum	Chromium	Copper	Iron	Manganese	Nickel	Strontum	Uranıum-234	Uranıum-235	Uranum-238	Vanadıum	Zinc	Arsenic	Barıum	Chromum	Copper	Iron	Manganese	Nickel	Strontium	Uranum-234	Uranium-238
Actual Northing	751194 007	751194 007	751194 007	751194 007	751194 007	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751189 756	751185 588	751185 588	751185 588	751185 588	751185 588	751185 588	751185 588	751185 588	751185 588	751185 588
Actual Easting	2083789 140	2083789 140	2083789 140	2083789 140	2083789 140	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083825 105	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692	2083860 692
Location	CF49-002	CF49-002	CF49-002	CF49-002	CF49-002	CF49-003	CF49-004																					
IHSS/PAC/ UBC Site												·—		<del></del>														

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	pCv8	pC1/g	pC1/g	mg/kg	$pCV_{\mathcal{B}}$	pC1/g	mg/kg																				
Ecological AL	433	NA	21.6	NA	NA	NA	NA	NA	1800	1900	1600	433	NA	1800	1600	433	NA	216	NA	NA	NA	NA						
WRW AL	7150	307000	22 2	26400	268	40900	20400	613000	300	8	351	7150	26400	268	40900	307000	3480	20400	613000	300	351	7150	307000	22.2	26400	268	40900	307000
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	0.0	0.0	00	00	0.0	0.0	00	00	0.0	00	00	0.0	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Background Mean + 2 SD	45 590	73 760	10 090	141 260	16 990	18 060	14 910	48 940	2.3	0 094	2 000	45 590	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000
Detection Limit	31 000	0006	5.000	000 86	20 000	4 000	12 000	20 000	I 280	0 085	1 280	31 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	1 740	1 740	31 000	0006	5 000	000 86	20 000	4 000	2190 000
Result	109 000	159 000	30.000	553 000	25 600	57 600	15 500	374 000	2 723	0 122	2 723	000 29	750 000	55 200	105 000	33700 000	468 000	38 600	267 000	4 142	4 142	120 000	124 000	11 800	635 000	46 700	161 000	36100 000
Analyte	Vanadıum	Zinc	Arsenic	Barıum	Chromum	Copper	Nickel	Strontum	Uranum-234	Uranıum-235	Uranıum-238	Vanadıum	Barıum	Chromium	Copper	Iron	Manganese	Nickel	Strontum	Uranum-234	Uranium-238	Vanadıum	Zinc	Arsenic	Barıum	Chromium	Copper	Iron
Actual Northing	751185 588	751185 588	751181 495	751181 495	751181 495	751181 495	751181 495	751181 495	751181 495	751181 495	751181 495	751181 495	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751218 148	751177 223	751177 223	751177 223	751177 223	751177 223
Actual Easting	2083860 692	2083860 692	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083896 613	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083875 213	2083932 293	2083932 293	2083932 293	2083932 293	2083932 293
Location	CF49-004	CF49-004	CF49-005	CF49-006	CF49-006	CF49-006	CF49-006	CF49-007	CF49-007	CF49-007	CF49-007	CF49-007																
IHSS/PAC/ UBC Site		•				•	·					<b>-</b> ,-	·	<b></b>														

Table 3
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	pCv/g	pC1/g	pCı/g	mg/kg																	
Ecological AL	NA	NA	NA	1800	1900	1600	433	NA	216	NA	1800	1900	1600	433	NA	216	NA	NA	NA	NA	NA	NA A						
WRW AL	3480	20400	613000	300	8	351	7150	307000	22 2	26400	268	40900	307000	3480	20400	613000	300	8	351	7150	307000	22.2	26400	268	40900	307000	3480	20400
Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	0.0	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	00	00	0.0	0.0	00	00	0.0	0.0	00
Background Mean + 2 SD	365 080	14 910	48 940	2 253	0 094	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910
Detection Limit	158 000	12 000	20 000	I 730	0 230	1 730	31 000	000 6	5 000	000 86	20 000	4 000	2190 000	158 000	12 000	20 000	I 530	0 157	1 530	31 000	0006	2 000	000 86	20 000	4 000	2190 000	158 000	12 000
Result	402 000	47 300	214 000	2 105	0415	2 105	152 000	146 000	10 200	876 000	32 900	135 000	33100 000	1060 000	39 700	336 000	3 660	0 292	3 660	53 300	119 000	16 200	793 000	27 000	85 300	32400 000	657 000	44 900
Analyte	Manganese	Nickel	Strontum	Uranum-234	Uranium-235	Urantum-238	Vanadıum	Zinc	Arsenic	Barıum	Chromum	Copper	Iron	Manganese	Nickel	Strontium	Uransum-234	Uranium-235	Uranium-238	Vanadıum	Zinc	Arsenic	Barrum	Chromum	Copper	Iron	Manganese	Nickel
Actual Northing	751177 223	751177 223	751177 223	751177 223	751177 223	751177 223	751177 223	751177 223	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751210 291	751243 420	751243 420	751243 420	751243 420	751243 420	751243 420	751243 420
Actual Easting	2083932 293	2083932 293	2083932 293	2083932 293	2083932 293	2083932 293	2083932 293	2083932 293	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083918 682	2083903 515	2083903 515	2083903 515	2083903 515	2083903 515	2083903 515	2083903 515
Location	CF49-007	CF49-007	CF49-007	CF49-007		CF49-007	CF49-007	CF49-007	CF49-008	CF49-009																		
IHSS/PAC/ UBC Site																												

Table 3
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	pCu/g	pC1/g	pCı/g	mg/kg	mg/kg	mg/kg	pC1/g	pC1/g	mg/kg	pC1/g	pC1/g	pC1/g	mg/kg	pC1/g	pC1/g	pC1/g	mg/kg	pC1/g	pC1/g	pCv/g	mg/kg	pCu/g	pC1/g	pC1/g	mg/kg	pCu/g	pC1/g
Ecological AL	NA	1800	1900	1600	433	NA	8 19	1800	1600	8 29	1800	1900	1600	8 19	1800	1900	1600	8 19	1800	1900	1600	8 29	1800	1900	1600	8 29	1800	1900
WRW AL	613000	300	8	351	7150	307000	2750	300	351	2750	300	8	351	2750	300	8	351	2750	300	8	351	2750	300	8	351	2750	300	∞
Depth End	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	6.5	6.5	6.5	65	8.5	8.5	8.5	8.5	105	105	10.5
Depth Start	0.0	00	0.0	0.0	0.0	0.0	0	0	0	0.5	0.5	0.5	0.5	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	6.5	6.5	6.5	65	8.5	8.5	85
Background Mean + 2 SD	48 940	23	0 094	2 000	45 590	73 760	5 98	2 253	2	3 04	2 64	0 12	1 49	3 04	2 64	0 12	1 49	3 04	264	0 12	1 49	3.04	2 64	0 12	1 49	3 04	2 64	0 12
Detection Limit	20 000	I 740	0 172	1 740	31 000	0006	7 465	2 513	2 513	6 604	2 224	0 191	2 224	6 108	2 056	0 148	2 056	9/1/9	2 282	0 157	2 282	6 322	2 129	0 161	2 129	5 353	1 802	0 178
Result	222 000	3 938	0 275	3 938	112 000	150 000	7 502	2 526	2 526	14 402	4 849	0 266	4 849	15 174	5 109	0 270	5 109	10 125	3 409	0 176	3 409	16 142	5 435	0 295	5 435	12 652	4 260	0 249
Analyte	Strontum	Uranum-234	Uranium-235	Uranıum-238	Vanadium	Zinc	Uramum, Total	Uranium-234	Urantum-238	Uranium, Total	Uranium-234	Uranıum-235	Uranıum-238	Uramum, Total	Uranıum-234	Uranium-235	Urantum-238	Uranium, Total	Uranium-234	Urantum-235	Uranıum-238	Uranium, Total	Uranium-234	Uranium-235	Uranıum-238	Uranıum, Total	Uranium-234	Uranıum-235
Actual Northing	751243 420	751243 420	751243 420	751243 420	751243 420	751243 420	751225 894	751225 894	751225 894	751225 894	751225.894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894	751225 894
Actual Easting	2083903 515	2083903 515	2083903 515	2083903 515	2083903 515	2083903 515	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455	2083812 455
Location Code	CF49-009	CF49-009	CF49-009	CF49-009	CF49-009	CF49-009	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018		CF49-018	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018		CF49-018	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018	CF49-018
IHSS/PAC/ UBC Site									_														- <b></b>		- <del></del>		-	

Table 3

HSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pC1/g	mg/kg	pC1/g	pCı/g	pC1/g	mg/kg	pCı/g	pC1/g	pC1/g	mg/kg	pC1/g	pC1/g	mg/kg	pC1/g	pCv/g	pCı/g	mg/kg	pCu/g	pCv/g	pC1/g	mg/kg	pC1/g	pC1/g	pC1/g	mg/kg	pCv/g	pC1/g	pCI/g
Ecological AL	1600	67.8	1800	1900	1600	67.8	1800	1900	1600	67.8	1800	1900	678	1800	1900	1600	678	1800	1900	1600	678	1800	1900	1600	8 19	1800	1900	1600
WRW AL	351	2750	300	80	351	2750	300	8	351	2750	300	8	2750	300	8	351	2750	300	8	351	2750	300	8	351	2750	300	8	351
Depth End	10.5	0.5	0.5	0.5	0.5	2.5	2.5	2.5	2.5	4.5	4.5	4.5	6.5	6.5	6.5	6.5	8.5	8.5	8.5	8.5	105	105	10.5	105	0.5	0.5	0.5	0.5
Depth Start	8.5	0	0	0	0	0.5	0.5	0.5	0.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5	6.5	6.5	6.5	6.5	8.5	8.5	8.5	8.5	0.0	0.0	0.0	00
Background Mean + 2 SD	1 49	5 98	2 253	0 0939	2	3 04	2 64	0 12	1 49	3 04	2 64	0 12	3 04	2 64	0 12	1 49	3 04	2 64	0 12	1 49	3.04	2 64	0 12	1 49	5 98	2 253	0 0939	2
Detection Limit	1 802	6 461	2 175	0 179	2 175	4 526	1 524	0 128	1 524	5 697	1 918	0 134	5 773	1 944	0 151	1 944	5 336	1 796	0 154	1 796	3 844	1 294	0 121	1 294	6 365	2 143	0 153	2 143
Result	4 260	12 842	4 324	0 202	4 324	11 206	3 773	0 208	3 773	12 254	4 126	0 181	11 812	3 977	0 183	3 977	9 240	3 111	0 193	3 111	11 636	3 918	0 186	3 918	11 034	3 715	0 260	3.715
Analyte	Uranium-238	Uranium, Total	Uranıum-234	Uranıum-235	Uranıum-238	Uranıum, Total	Uramum-234	Uranium-235	Uranium-238	Uranıum, Total	Uranium-234	Uranıum-235	Uranıum, Total	Uranium-234	Uranium-235	Uranium-238	Uranium, Total	Uranıum-234	Uranium-235	Uranıum-238	Uranium, Total	Uranıum-234	Uranium-235	Uranum-238	Uranıum, Total	Uranium-234	Uranium-235	Uranıum-238
Actual Northing	751225 894	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751245 315	751266 518	751266 518	751266 518	751266 518
Actual Easting	2083812 455	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083817 069	2083819 070	2083819 070	2083819 070	2083819 070
Location Code	CF49-018	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-019	CF49-020	CF49-020	CF49-020	CF49-020
IHSS/PAC/ UBC Site			<u> </u>	است		<b></b>												<b></b>	·		·		L	· !				

Table 3
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

THSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CF49-020	2083819 070	751266 518	Uranıum, Total	10 244	4 709	3.04	0.5	2.5	2750	8 29	mg/kg
	CF49-020	2083819 070	751266 518	Uranium-234	3 449	1 585	2 64	0.5	2.5	300	1800	pC1/g
	CF49-020	2083819 070	751266 518	Uranium-235	0 280	0 166	0 12	0.5	2.5	8	1900	pC1/g
	CF49-020	2083819 070	751266 518	Uranıum-238	3 449	1 585	1 49	0.5	2.5	351	1600	pC1/g
	CF49-020	2083819 070	751266 518	Uramum, Total	9 748	6 448	3 04	2.5	4.5	2750	8 / 9	mg/kg
	CF49-020	2083819 070	751266 518	Uranium-234	3 282	2 171	2 64	2.5	4.5	300	1800	pC1/g
	CF49-020	2083819 070	751266 518	Uranium-235	0.211	0 172	0 12	2.5	4.5	8	1900	pC1/g
	CF49-020	2083819 070	751266 518	Uranium-238	3 282	2 171	1 49	2.5	4.5	351	1600	pC1/g
	CF49-020	2083819 070	751266 518	Uranıum, Total	16 065	5 220	3.04	4.5	6.5	2750	8 19	mg/kg
	CF49-020	2083819 070	751266 518	Uranium-234	5 409	1 758	2 64	4.5	6.5	300	1800	pC1/g
	CF49-020	2083819 070	751266 518	Urantum-235	0 347	0 178	0 12	4.5	6.5	8	1900	pC1/g
	CF49-020	2083819 070	751266 518	Uranıum-238	5 409	1 758	1 49	4.5	6.5	351	1600	pC1/g
	CF49-020	2083819 070	751266 518	Uranium, Total	12 029	5 843	3 04	6.5	8.5	2750	8 /9	mg/kg
	CF49-020	2083819 070	751266 518	Uranium-234	4 050	1 967	2 64	6.5	8.5	300	1800	pC1/g
	CF49-020	2083819 070	751266 518	Uranium-238	4 050	1 967	1 49	6.5	8.5	351	1600	pC1/g
	CF49-020	2083819 070	751266 518	Uranıum, Total	9 459	5 893	3 04	8.5	10.5	2750	67.8	mg/kg
	CF49-020	2083819 070	751266 518	Uranium-234	3 185	1 984	2 64	8.5	10.5	300	1800	pC1/g
	CF49-020	2083819 070	751266 518	Uranıum-238	3 185	1 984	1 49	8.5	10.5	351	1600	pCı/g
	CG49-000	2083967 920	751173 028	Barıum	537 000	000 86	141 260	0.0	0.5	26400	NA	mg/kg
	CG49-000	2083967 920	751173 028	Copper	108 000	4 000	18 060	00	0.5	40900	NA	mg/kg
	CG49-000	2083967 920	751173 028	Uranum-234	4 010	1 480	23	00	05	300	1800	pCv <sub>R</sub>
	CG49-000	2083967 920	751173 028	Uranium-235	0 262	0 136	0 094	00	0.5	8	1900	pC1/g
	CG49-000	2083967 920	751173 028	Uranıum-238	4 010	1 480	2 000	00	0.5	351	1600	pC1/g
	CG49-000	2083967 920	751173 028	Vanadıum	177 000	31 000	45 590	00	0.5	7150	433	mg/kg
	CG49-001	2083953 892	751206 161	Arsenic	10 200	2 000	10 090	00	0.5	22.2	216	mg/kg
	CG49-001	2083953 892	751206 161	Barrum	544 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CG49-001	2083953 892	751206 161	Chromium	58 500	20 000	16 990	00	0.5	268	NA	mg/kg
	CG49-001	2083953 892	751206 161	Copper	131 000	4 000	18 060	00	0.5	40900	NA	mg/kg

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Actual Northing	al ng	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
751206 161		Iron	29000 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
751206 161	1	Nickel	39 100	12 000	14 910	0.0	0.5	20400	NA	mg/kg
751206 161		Strontium	141 000	20 000	48 940	0.0	0.5	613000	NA	mg/kg
751206 161		Uranum-234	\$ 308	1740	23	00	05	300	1800	$pCV_{\mathcal{R}}$
751206 161		Uranium-235	0 192	0 122	0 094	0.0	0.5	8	1900	pC1/g
751206 161		Uranium-238	5 308	1 740	2 000	00	0.5	351	1600	pC1/g
751206 161		Vanadıum	196 000	31 000	45 590	0.0	0.5	7150	433	mg/kg
751206 161		Zinc	148 000	000 6	73 760	0.0	0.5	307000	NA	mg/kg
751216 166		Uranium, Total	10 54	4 25	3 04	4.5	6.5	2750	8 19	mg/kg
751216 166		Uranıum, Total	14 99	6 04	3.04	4.5	6.5	2750	8 49	mg/kg
751216 166		Uranıum-234	5 05	1 45	2 64	4.5	6.5	300	1800	pC1/g
751216 166		Uranum-235	0 22	0 115	0 12	4.5	6.5	8	1900	pC1/g
751216 166 L	<u> </u>	Uranium-238	5 05	1 43	1 49	4.5	6.5	351	1600	pC1/g
751197 333 4	ا بح	Americium-241	0 20	0 17	0 0227	0	0.5	76	1900	pC1/g
751197 333 L	<u>ب</u>	Uranum, Total	7 0 7	5 52	5 98	0	0.5	2750	8 29	mg/kg
751197 333 L	<u> </u>	Uranıum, Total	8 23	643	5 98	0	0.5	2750	8 29	mg/kg
751197 333 L		Uranıum-234	2.77	2 17	2 253	0	0.5	300	1800	pC1/g
751197 333		Uranum-235	0 19	0 14	0 0939	0	0.5	8	1900	pC1/g
751197 333		Uranum-238	2.77	2 17	2	0	0.5	351	1600	pC1/g
751305 176		Uranum-234	4 343	1 520	23	00	05	300	1800	pCv/g
751305 176	لتت	Uranium-235	0 229	0 125	0 094	00	0.5	∞	1900	pC1/g
						-				
751305 176		Uranium-238	4 343	1 520	2 000	00	0.5	351	1600	pCı/g
751305 176		Uranum-234	4 237	1 S90	26	0.5	25	300	1800	pCv/g
751305 176	_	Uranium-238	4 237	1 590	1 49	0.5	2.5	351	1600	pC1/g
751305 176		Uranum-235	0 196	0 108	0 12	2.5	4.5	8	1900	pC1/g
751305 176		Plutonium-239/240	0 043	0 018	0 02	65	85	20/116	3800	pCv/g
751304 939		Uranium-235	0 106	0 103	0 094	00	0.5	80	1900	pCı/g

Table 3 IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pCu/g	pC1/g	pC1/g	pCv/g	pC1/g	pCı/g	pCv8	pCı/g	pC1/g	pCv/g	pC1/g	pCı/g	pCvg	pC1/g	pCı/g	pCv/g	pC1/g	pC1/g	pCv8	pCu/g	pC1/g	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg
Ecological AL	1800	1600	1900	1800	1900	1600	1800	1900	1600	1800	1600	1900	1800	1600	1900	1800	1900	1600	1800	1900	1600	NA	21 6	;	AN S	2.15	NA
WRW AL	300	351	8	300	8	351	300	8	351	300	351	8	300	351	8	300	8	351	300	8	351	228000	22.2	00100	70400	176	268
Depth End	2.5	2.5	4.5	0.5	0.5	0.5	2.5	2.5	2.5	0.5	0.5	2.5	2.5	2.5	6.5	0.5	0.5	0.5	45	4.5	4.5	0.5	0.5	ų.	20	S	0.5
Depth Start	0.5	0.5	2.5	00	0.0	0.0	0.5	0.5	0.5	00	00	0.5	05	0.5	4.5	00	0.0	00	2.5	2.5	2.5	00	0.0	Ó		00	00
Background Mean + 2 SD	26	1 49	0 12	23	0 094	2 000	26	0 12	1 49	2 253	2 000	0 12	26	1 49	0 12	2.3	0 094	2 000	26	0 12	1 49	16902 000	10 090	0,00	141 200	0,200	16 990
Detection Limit	1 560	1 560	0 118	I 400	0 126	1 400	I 540	0 116	1 540	I 470	1 470	0 107	1 650	1 650	0 055	1 680	0 144	1 680	I 490	0 139	1 490	2 900	2 000	80	3000	0.040	0 008
Result	4815	4815	0 249	3 041	0 185	3 041	3316	0 208	3 316	2 113	2 113	0 346	4 078	4 078	0 129	4 056	0 226	4 056	5 394	0 271	5 394	25000 000	13 900	000	249 000	1 000	39 600
Analyte	Uranum-234	Uranium-238	Uranium-235	Uranum-234	Uranium-235	Uranium-238	Uranium-234	Uranium-235	Uranium-238	Uranum-234	Uranium-238	Uranium-235	Uranium-234	Uranium-238	Uranium-235	Uranum-234	Uranium-235	Urantum-238	Uranum-234	Uranium-235	Uranum-238	Aluminum	Arsenic	ç	Darium D	Beryllium	Chromium
Actual Northing	751304 939	751304 939	751304 939	751286 076	751286 076	751286 076	751286 076	751286 076	751286 076	751285 175	751285 175	751285 175	751285 175	751285 175	751285 175	751295 677	751295 677	751295 677	751295 677	751295 677	751295 677	751119 415	751119 415		-1-	Т	751119415
Actual Easting	2083853 434	2083853 434	2083853 434	2083853 422	2083853 422	2083853 422	2083853 422	2083853 422	2083853 422	2083831 756	2083831 756	2083831 756	2083831 756	2083831 756	2083831 756	2083842 564	2083842 564	CF49-016 2083842 564	2083842 564	2083842 564	2083842 564	2084126 519	2084126 519	7000	2084120 219	2084120 519	2084126 519
Location	CF49-013	CF49-013	CF49-013	CF49-014	CF49-014	CF49-014	CF49-014	CF49-014	CF49-014	CF49-015	CF49-015	CF49-015	CF49-015	CF49-015	CF49-015	CF49-016	CF49-016	CF49-016	CF49-016	CF49-016	CF49-016	CG48-015	CG48-015			7	CG48-015
IHSS/PAC/ UBC Site		·i		لــــــــــــــــــــــــــــــــــــ	<u> </u>			•		<b></b>		·'										-002	139 1(N)(b) -	Hydroxide Tank, KOH, NaOH	Condensate		

Table 3
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

IHSS/PAC/ UBC Site	Location	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start	Depth End	WRW AL	Ecological AL	Units
	CG48-015	2084126 519	751119 415	Copper	189 000	0 260	18 060	0.0	0.5	40900	NA	mg/kg
	CG48-015	2084126 519	751119 415	Iron	32500 000	2190 000	18037 000	0.0	0.5	307000	NA	mg/kg
	CG48-015	2084126 519	751119 415	Lithium	14 000	0 150	11 550	00	0.5	20400	NA	mg/kg
	CG48-015	2084126 519	751119 415	Nickel	44 900	0 250	14 910	0.0	0.5	20400	NA	mg/kg
	CG48-015	2084126 519	751119 415	Strontium	162 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CG48-015	2084126 519	751119 415	Uranıum-234	4 700	I 800	2.3	00	0.5	300	1800	pCv8
	CG48-015	2084126 519	751119415	Uranium-238	4 700	1 800	2 000	0.0	0.5	351	1600	PC1/g
	CG48-015	2084126 519	751119 415	Vanadıum	164 000	0 190	45 590	0.0	0.5	7150	433	mg/kg
	CG48-015	2084126 519	751119415	Zinc	162 000	0006	73 760	0.0	0.5	307000	NA	mg/kg
	CG48-015	2084126 519	751119 415	Arsenic	15 300	5 000	13 14	0.5	2.5	22.2	216	mg/kg
	CG48-015	2084126 519	751119415	Barnum	000 669	000 86	289 38	0.5	2.5	26400	NA	mg/kg
	CG48-015	2084126 519	751119 415	Copper	129 000	4 000	38 21	0.5	2.5	40900	NA	mg/kg
	CG48-015	2084126 519	751119415	Uranium-238	4 819	1 460	1 49	0.5	2.5	351	1600	pC1/g
	CG48-015	2084126 519	751119 415	Vanadıum	168 000	31 000	88 49	0.5	2.5	7150	433	mg/kg
		2084126 519	751119 415	Zinc	181 000	0006	139 1	0.5	2.5	307000	NA	mg/kg
IHSS 139 2 – Caustic/Acid								<del></del>				
Hydrofluoric	200 5755	000 2002000	750007 467	V	17.300	98	000	-	- v	,	710	
Idilk		2083896 080	1	Banum	805 000	000 86	141 260	00	0.5	26400	NA	mg/kg
	CF47-006	2083896 080	750802 462	Chromum	45 400	20 000	16 990	0.0	0.5	268	NA	mg/kg
	CF47-006	2083896 080	750802 462	Copper	118 000	4 000	18 060	0.0	0.5	40900	NA	mg/kg
	CF47-006	2083896 080	750802 462	Iron	35900 000	2190 000	18037 000	0.0	0.5	307000	WA	mg/kg
	CF47-006	2083896 080	750802 462	Manganese	591 000	158 000	365 080	0.0	0.5	3480	NA	mg/kg
	CF47-006	2083896 080	750802 462	Nickel	63 900	12 000	14 910	00	0.5	20400	NA	mg/kg
	CF47-006	2083896 080	750802 462	Strontium	189 000	20 000	48 940	00	0.5	613000	NA	mg/kg
	CF47-006	2083896 080	750802 462	Uranum-234	4 927	1 630	23	00	05	300	008I	pCu/g
	CF47-006	CF47-006 2083896 080	750802 462	Uranıum-235	0 223	0 132	0 094	8	0.5	80	1900	pC1/g

Table 3

IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

gical Units	00 pC1/g	33 mg/kg	A mg/kg	6 mg/kg	A mg/kg	A mg/kg		A mg/kg	A mg/kg	A mg/kg	A mg/kg	1800 pCvg	00 pCt/g		33 mg/kg	NA mg/kg											
AL Ecological	1600	433	NA O	216	NA NA	NA	NA 0	NA NA	NA	NA 0	NA NA		1900	1600	433	_											
h WRW AL	351	7150	307000	22 2	26400	268	40900	307000	3480	20400	613000	300	∞	351	7150	307000		1000000	100000	26400	1000000 26400 40900 300	100000 26400 40900 300 8	100000 26400 40900 300 351	100000 26400 40900 300 8 8 351 7150	1000000 26400 40900 300 8 8 351 7150 26400	1000000 26400 300 300 351 7150 26400 40900	1000000 26400 300 351 7150 26400 40900 3090000
Depth End	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5		7.3									
Depth Start	00	0.0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	0.5		0.5						05 05 05 05 05 05	05 05 05 05 05 05	05 05 05 05 05 05
Background Mean + 2 SD	2 000	45 590	73 760	10 090	141 260	16 990	18 060	18037 000	365 080	14 910	48 940	23	0 094	2 000	45 590	73 760	NA	280 28	207 30	38 21	38.21	3821 26 012	38 21 2 6 0 12 1 49	38 21 2 6 0 12 1 49 88 49	38 21 2 6 0 12 1 49 88 49 289 38	38 21 2 6 0 12 1 49 88 49 289 38	38 21 2 6 0 12 1 49 88 49 289 38 38 21 NA
Detection Limit	1 630	31 000	000 6	2 000	98 000	20 000	4 000	2190 000	158 000	12 000	20 000	1 690	0 140	1 690	31 000	000 6	0 250	98 000	22.22	4 000	4 000 1 770	4 000 1 770 0 106	4 000 1 770 0 106 1 770	4 000 1 770 0 106 1 770 31 000	4 000 1 770 0 106 1 770 31 000 98 000	4 000 1 770 0 106 1 770 31 000 98 000 4 000	4 000 1 770 0 106 1 770 31 000 98 000 4 000 5 900
Result	4 927	92 400	175 000	10 400	777 000	31 000	116 000	29700 000	537 000	34 200	240 000	4 140	0 302	4 140	88 500	165 000	2 500	536 000	111 222	80 800	80 800	80 800 4 788 0 146	80 800 4 788 0 146 4 788	80 800 4 788 0 146 4 788 157 000	80 800 4 788 0 146 4 788 157 000 548 000	80 800 4 788 0 146 4 788 157 000 548 000 91 300	80 800 4 788 0 146 4 788 157 000 548 000 91 300 110 000
Analyte	Uramum-238	Vanadıum	Zinc	Arsenic	Barium	Chromium	Copper	Iron	Manganese	Nickel	Strontum	Uranum-234	Uranium-235	Uranium-238	Vanadıum	Zinc	Nitrate	Barıum		Copper	Copper Uranum-234	Copper Uranum-234 Uranum-235	Copper Uranum-234 Uranum-235 Uranum-238	Copper Uranium-234 Uranium-235 Uranium-238 Vanadium	Copper Uranium-234 Uranium-235 Uranium-238 Vanadium Barium	Copper Uranium-234 Uranium-235 Uranium-238 Vanadium Barium Copper	Copper Uranium-234 Uranium-235 Uranium-238 Vanadium Barium Copper
Actual Northing	750802 462	750802 462	750802 462	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	750788 070	751017 273	751018 377		1	751018 377	1 1 1	1 1 1 1 1				
Actual Easting	2083896 080	2083896 080	2083896 080	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	2083914 330	CG48-016 2083956 548	2083924 677		2083924 677	2083924 677 2083924 677	2083924 677 2083924 677 2083924 677	2083924 677 2083924 677 2083924 677 2083924 677	2083924 677 2083924 677 2083924 677 2083924 677 2083924 677	2083924 677 2083924 677 2083924 677 2083924 677 2083924 677 2083924 677	2083924 677 2083924 677 2083924 677 2083924 677 2083924 677 2084026 765 2084026 765	
Location	CF47-006	CF47-006	CF47-006	CF47-007	CG48-016	CF48-017		T			<del>                                     </del>				التواط المراجع												
IHSS/PAC/ UBC Site																	700-150 3 -	Radioactive	4	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774	Site Between Buildings 771 and 774

Table 3

HSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pC1/g	pC1/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pC1/g	mg/kg		pC1/g	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ng/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	ng/kg	ug/kg
Ecological AL	1900	1600	433	216	NA	NA	25.6	1900	433		1900		_	800000	25700	1010000	0000101	-			-	-	•	•
WRW AL	8	351	7150	22.2	26400	40900	1000	<b>∞</b>	7150		9/	204000000	26400	34900	3490	34900	349000	0000261	268	3490000	40900	3490	27200000	34900
Depth End	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	9.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.0	00	00	00	0 0	00	0.0	00	0 0	00	00	00	00	00
Background Mean + 2 SD	0 12	1 49	88 49	13 14	289 38	38 21	24.97	0 12	88 49		0 0227	_	141 26	-	-			_	16 99	_	18 06		-	
Detection Limit	0 117	2 170	31 000	2 000	000 86	4 000	7 000	0 136	31 000		090	70	86	42	55	29	73	75	20	36	4	99	42	47
Result	0 247	3 123	140 000	16 400	536 000	130 000	27 200	0 177	128 000		3 289	110	727	430	530	820	410	830	43.2	530	419	200	590	089
Analyte	Uranum-235	Uranıum-238	Vanadıum	Arsenic	Barıum	Copper	Lead	Uranium-235	Vanadium		Americium-241	Anthracene	Barrum	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	bıs(2- Ethylhexyl)phthalate	Chromium	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene
Actual Northing	751016 607	751016 607	751016 607	751049 910	751049 910	751049 910	751049.910	751049 910	751049 91		2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34		2083566 34	2083566 34
Actual Easting	2084026 765	2084026 765	2084026 765	2084064 950	2084064 950	2084064 950	2084064 950	2084064 950	2084064 950		751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23
Location	CG48-017	CG48-017	CG48-017	CG48-018	CG48-018	CG48-018	CG48-018	CG48-018	CG48-018		CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027
IHSS/PAC/ UBC Site										Maintenance Shop Drain (Inside Maintenance Shop)														

Table 3
IHSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	mg/kg	mg/kg	mg/kg	pCvg	ug/kg	mg/kg	ug/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg		ug/kg	ug/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg
Ecological AL	•	,	•	3800	•		128000	8 29	1800	1900	1600	433	•		١	,	216	•	•	800000	25700	1010000	1010000	1	1
WRW AL	307000	3480	20400	50	22100000	613000	31300000	2750	300	8	351	7150	307000		40800000	204000000	22.2	26400	205000	34900	3490	34900	349000	1970000	268
Depth End	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth Start	0.0	0.0	0.0	00	0.0	0.0	0.0	00	00	0.0	0.0	0.0	00		00	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00
Background Mean + 2 SD	18037	365 08	14 91	9900	_	48 94	-	5 98	2 25	60 0	2	45 59	73 76		•		10 09	141 25		-	-	_	_	ı	16 99
Detection Limit	2190	158	12	090	09	20	2 66	5 55	I 87	0 18	1 87	31	6	i	52	75	5	86	5 37	45	59	73	79	81	20
Result	30700	392	45	SZ 8I	019	155	4.8	999 II	3 928	0 225	3 928	183	117		150	220	106	584	1	470	490	490	280	280	552
Analyte	Iron	Manganese	Nickel	Plutonium-239/240	Pyrene	Strontium	Toluene	Uranium, Total	Uransum-234	Uranium-235	Uranıum-238	Vanadıum	Zinc		Acenaphthene	Anthracene	Arsenic	Barnum	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	bıs(2- Ethylhexyl)phthalate	Chromium
Actual Northing	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34	2083566 34		2083538 06	2083538 06	1	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06
Actual Easting	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23	751065 23		751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32
Location Code	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027	CE48-027		CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028
IHSS/PAC/ UBC Site									-		-			Maintenance Shop Drain (Outside Maintenance	Shop)							_			

Table 3

its	Units	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	ug/kg	mg/kg	pCu/g	pC1/g	pC1/g	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	pCvg
ction Lim	Ecological AL	-	-	•	-	-	-	•	25 6	_	•	-	•	-	128000	678	1800	1900	1600	433	-	216		NA	NA	NA	25 6	1800
is or Dete	WRW AL	3490000	40900	3490	27200000	40800000	34900	307000	1000	3480	3090000	20400	22100000	613000	31300000	2750	300	8	351	7150	307000	22 2		26400	268	40900	1000	300
eviation	Depth End	0.5	50	9.0	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.5		65	6.5	6.5	6.5	65
lard D	Depth Start	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	0 0	00	00	00	4.5		45	45	4.5	4.5	45
Two Stance	Background Mean + 2 SD		18 06	_	-	-	_	18037	54 62	365 08	1	14 91	-	48 94	•	5 98	2 25	0 093	2	45 59	73 76	13 14		289 38	NA	38 21	24 97	26
feans Plus	Detection Limit	39	4	72	45	63	51	2190	7	158	49	12	65	20	5 37	5 29	1 78	0.15	1 78	31	6	2 000		000 86	20 000	4 000	7 000	1 470
kground M	Result	470	9 2 8	120	026	110	380	39900	202	527	99	52	940	148	2.7	10 3059	3 47	0 2399	3 47	161	209	000 81		554 000	38 900	74 100	25 100	3 174
s Greater Than Background Means Plus Two Standard Deviations or Detection Limits	Analyte	Chrysene	Copper	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Iron	Lead	Manganese	Naphthalene	Nickel	Pyrene	Strontium	Toluene	Uranum, Total	Uranium-234	Uranium-235	Uranium-238	Vanadium	Zinc	Arsenic		Barnum	Chromum	Copper	Lead	Uranum-234
IHSS Group 700-4 Characterization Results G	Actual Northing	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	2083538 06	751051 722		751051 722	751051 722	751051 722	751051 722	751051 722
Characteriz	Actual Easting	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	751064 32	2084187 540	•	2084187 540	2084187 540	2084187 540	2084187 540	2084187 540
roup 700-4	Location	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CE48-028	CH48-020		CH48-020	CH48-020	CH48-020	CH48-020	CH48-020
IHSS G	IHSS/PAC/ UBC Site																					IHSS 149 1	(Solar Evaporation	Ponds)				

Table 3

HSS Group 700-4 Characterization Results Greater Than Background Means Plus Two Standard Deviations or Detection Limits

Units	pCi/g	pC1/g	mg/kg	mg/kg	mg/kg	pCv/g	pC1/g	pC1/g	mg/kg	mg/kg
WRW AL Ecological	1900	1600	433	216	NA	1800	1900	1600	433	NA
WRW AL	8	351	7150	22.2	40900	300	8	351	7150	307000
Depth End	65	6.5	6.5	6.5	6.5	65	6.5	6.5	6.5	6.5
Depth Start	4.5	4.5	4.5	4.5	4.5	45	4.5	4.5	4.5	4.5
Background Mean + 2 SD	0 12	1 49	88 49	13 14	38.21	26	0 12	1 49	88 49	139 1
Detection Limit	0 121	1 470	31 000	2 000	4 000	I 530	0 106	1 530	31 000	000 6
Result	0 227	3 174	161 000	14 100	006 86	2 188	0 251	2 188	173 000	582 000
Analyte	Uranıum-235	Uranium-238	Vanadium	Arsenic	Copper	Uranum-234	Uranium-235	Uranium-238	Vanadıum	Zınc
Actual Northing	751051 722	751051 722	751051 722	751015 760	751015 760	751015 760	751015 760	751015 760	751015 760	751015 760
Actual Easting	CH48-020   2084187 540   751051 722   Uranum-235	CH48-020 2084187 540 751051 722 Uranii	CH48-020 2084187 540 751051 722 Vanad	CH48-021   2084253 990   751015 760   Arsenic	CH48-021 2084253 990 751015 760 Copper	CH48-021   2084253 990   751015 760   Uranum-234	CH48-021 2084253 990 751015 760 Uranii	CH48-021   2084253 990   751015 760   Uranii	CH48-021 2084253 990 751015 760 Vanad	CH48-021   2084253 990   751015 760   Zanc
Location Code	CH48-020	CH48-020	CH48-020	CH48-021	CH48-021	CH48-021	CH48-021	CH48-021	CH48-021	CH48-021
IHSS/PAC/ Location UBC Site Code										

Table 4
IHSS Group 700-4 Characterization Results Greater Than ALs

Location	Analyte	Result	Depth (feet)
CH48-004	Arsenic	24 8 mg/kg (WRW exceedance)	45-65
CG48-011	Arsenic	20 2 mg/kf (ecological receptor exceedance	00-05
CF49-000	Arsenic	22 8 mg/kg (WRW exceedance	00-05
CF49-005	Arsenic	30 mg/kg (WRW exceedance)	00-05
CG48-008	Americium-241	1,220 pC <sub>1</sub> /g (WRW exceedance)	00-05
	}		beneath building basement
CG48-009	Americium-241	116 40 pC <sub>1</sub> /g (WRW exceedance)	00-05
			beneath building basement
CE47-012	Benzo(a)pyrene	23,000 ug/mg (WRW exceedance)	00-05
CE47-012	Dibenz(a,h)anthracene	5,500 ug/mg (WRW exceedance)	00-05
CE48-012	Benzo(a)pyrene	16,000 ug/mg (WRW exceedance)	00-05
CE48-028	Lead	202 mg/kg (ecological receptor exceedance)	00-05
CE49-008	Lead	26 0 mg/kg (ecological receptor exceedance)	00-05
			Beneath building basement
CE49-009	Lead	33 9 mg/kg (ecological receptor exceedance)	00-05
			Beneath building basement
CF48-008	Lead	47 7 mg/kg (ecological receptor exceedance)	00-05
	<u> </u>		Beneath building basement
CF48-021	Lead	31 7 mg/kg (ecological receptor exceedance)	08-10
			Beneath building basement
CF48-021	Lead	35 6 mg/kg (ecological receptor exceedance)	08-13
			Beneath building basement
CF48-024	Lead	32 7 mg/kg (ecological receptor exceedance)	10-15
 	1		Beneath building basement
CG48-018	Lead	27 2 mg/kg (ecological receptor exceedance)	00-05
CE48-011	Lead	108 mg/kg (ecological receptor exceedance)	00-05
CE48-019	Lead	60 mg/kg (ecological receptor exceedance)	00-05
CE49-007	Lead	63 9 mg/kg (ecological receptor exceedance)	00-05
CG48-008	Plutonium-239/240	1,690 pC1/g (WRW exceedance)	00-05
· · · · · · · · · · · · · · · · · · ·			beneath building basement
CG48-009	Plutonium-239/240	943 75 pC1/g (WRW exceedance)	00-05
•			beneath building basement
CE47-003	Plutonium-239/240	56 6 pC1/g (WRW exceedance)	00-05
			beneath building basement

Table 5
RFCA SORs for IHSS Group 700-4 Characterization Sampling Locations

	Group 7004 Character made	
EOCATION	SURFACE SOIL SOR	SUBSURFACE SOIL SOR
CD48-000	0 015	NA
CD48-001	0 053	NA
CE46-001	NA	0 040
CE47-000	NA	0 014
CE47-001	NA	0 093
CE47-002	NA	0 055
CE47-003	NA	0 589
CE47-004	NA	0 045
CE47-009	NA	0 062
CE47-011	0 059	NA
CE47-012	0 042	NA
CE47-013	0 057	NA
CE47-014	0 051	NA
CE47-015	0 041	NA
CE47-016	0 065	NA
CE47-017	0 015	NA
CE47-018	0 047	NA
CE47-019	0 015	NA
CE47-022	NA	0 103
CE47-023	NA	0 003
CE48-000	NA	0 044
CE48-001	0 049	NA
CE48-003	NA	0 014
CE48-006	NA	0 061
CE48-007	NA	0 017
CE48-008	0 039	NA
CE48-009	0 037	NA
CE48-010	0 050	NA
CE48-011	0 040	NA
CE48-012	0 063	NA
CE48-013	0 047	NA
CE48-014	0 035	NA
CE48-015	0 018	NA
CE48-016	0 045	NA
CE48-017	0 059	NA
CE48-018	0 034	NA
CE48-019	0 033	NA
CE48-020	0 027	NA
CE48-021	0 056	NA
CE48-023	0 046	NA
CE48-024	NA	0 035
CE48-025	NA	0 033
CE49-000	NA	0 077
CE49-001	0 013	NA
CE49-002	0 050	NA
CE49-003	0 029	NA
CE49-004	0 077	NA

Table 5
RFCA SORs for IHSS Group 700-4 Characterization Sampling Locations

LOCATION	SURFACE SOIL SOR	SUBSURFACE SOIL SOR
CE49-005	0 063	NA
CE49-006	0 057	NA
CE49-007	0 018	NA
CE49-008	0 035	NA
CE49-009	0 031	NA
CE49-012	NA	0 040
CF47-000	NA	0 033
CF47-001	NA	0 028
CF47-002	NA	0 020
CF47-003	NA	0 024
CF47-004	NA	0 069
CF47-005	NA	0 069
CF47-006	0 056	NA
CF47-007	0 061	NA
CF48-000	NA	0 032
CF48-003	NA	0 020
CF48-005	NA	0 111
CF48-006	NA NA	0 115
CF48-007	NA	0 052
CF48-008	NA NA	0 024
CF48-012	NA NA	0 030
CF48-013	0 039	NA NA
CF48-014	0 021	NA NA
CF48-015	0 020	NA NA
CF48-017	NA NA	0 048
CF48-018	NA NA	0 049
CF48-024	NA NA	0 030
CF49-000	0 057	NA NA
CF49-001	0 016	NA NA
CF49-002	0 050	NA NA
CF49-003	0 050	NA NA
CF49-003	0 026	NA NA
CF49-005	0 031	NA NA
CF49-005	0 024	NA NA
CF49-000 CF49-007	0 064	NA NA
CF49-007 CF49-008	0 057	NA NA
		NA NA
CF49-009 CF49-012	0 057	NA NA
CF49-012 CF49-013	0 013	NA NA
CF49-013 CF49-014	0 040	NA NA
CF49-014 CF49-015	0 040	NA NA
	0 0512	0 278
CF49-016		
CF49-017	NA NA	0 001
CG47-002	NA NA	0 052
CG47-003	NA NA	0 054
CG48-000	NA NA	0 052
CG48-001	NA NA	0 029
CG48-004	NA	0 017

Table 5
RFCA SORs for IHSS Group 700-4 Characterization Sampling Locations

LOCATION	SURFACE SOIL SOR	SUBSURFACE SØIL SOR
CG48-005	NA NA	NA
CG48-007	NA	0 169
CG48-008	NA	30 631
CG48-009	NA	9 728
CG48-010	NA	0 202
CG48-011	NA	0 021
CG48-012	NA	0 013
CG48-013	NA	0 033
CG48-015	NA	0 027
CG48-017	NA	NA
CG48-018	NA	NA
CG48-020	NA	0 048
CG48-023	NA	0 328
CG49-000	0 056	NA
CG49-001	0 054	NA
CG49-006	0 057	NA
CG49-007	0 003	NA
CH48-003	NA	0 063
CH48-004	NA	0 014
CH48-005	0 070	NA
CH48-006	0 191	NA
CH48-007	0 050	NA
CH48-008	0 045	NA
CH48-009	0 035	NA
CH48-010	0 045	NA
CH48-011	0 085	NA
CH48-012	0 039	NA
CH48-013	0 049	NA
CH48-014	0 065	NA
CH48-015	0 047	NA
CH48-017	NA	0 011
CH48-018	NA	0 031
CH48-019	NA	0 054
CH48-020	NA	0 048
CH48-021	NA	0 045
CH49-000	0 157	NA
CH49-001	0 157	NA
CH49-002	0 008	NA
CH49-003	0 048	· NA
CH49-004	0 154	NA

NA - No data available or radionuclides less than background

Table 6
Tanks 14 and 16 Characterization Soil Sampling Results

	Units	ug/kg	ug/kg	ug/kg	pCi/g	ug/kg	pCi/g	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	pCvg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	pCi/g	ug/kg	mg/kg
	Ecological AL	VΝ	NA	211000	1900	NA	3800	37500	NA	NA	NA	NA	1900	NA	800000	25700	1010000	1010000	2.15	NA	NA	NA	NA	NA	NA	NA	25 6	NA	NA	3800	•	٠
	WRW AL	345000	16400000	102000000	76	3090000	50	615000	345000	20400000	16400000	40800000	76	204000000	34900	3490	34900	349000	921	3490000	3490	2950000	73700000	27200000	40800000	34900	1000	3090000	613000000	50	22100000	613000
	Depth End	0.5	0.5	0.5	0.5	0.5	0.5	0.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CALL	Depth Start	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	7	2	7
	Background Mean + 2 SD	NA	AN	NA	0 023	NA	990 0	NA	NA	NA	NA	NA	0 0 0 0 0	ΝĀ	NA	NA	ΑN	NA	14 200	NA	NA	NA	NA	NA	NA	NA	24 970	NA	NA	0 0 0 0 0 0 0	-	211 380
OIL DOIL D	Detection Limit	5 87	58.7	117	2 939	5 87	2 939	5 87	909	38	909	37	11.34	28	30	48	35	38	0 12	33	30	43	25	27	41	27	0.31	38	42	11.34	160	0 067
TOTAL ISMAN	Result	12	889	120	727 9	220	5884 67	9.1	9 61	200	303	310	6115	290	340	300	240	230	15	370	79	190	180	980	240	180	55	270	120	49,412.4	810	280
rains it and to char	Analyte	1,2-Dichloropropane	4-Methyl-2-pentanone	Acetone	Americium-241	Naphthalene	751030 039 Plutonium-239/240	Tetrachloroethene	1,2-Dichloropropane	2-Methylnaphthalene	4-Methyl-2-pentanone	Acenaphthene	751030.039 Americium-241	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Beryllium	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	D1-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Lead	Naphthalene	Phenol	Plutonum-239/240	Pyrene	Strontum
	Actual Northing		751030 039	751030 039 Acetone	751030 039	751030 039 Naphthalene	751030 039	751030 039	751030 039	751030 039	751030 039	751030 039	751030.039	751030 039	751030 039	751030 039	751030 039	751030 039	751030.039	751030 039	751030 039	751030 039	751030 039	751030 039 Fluoranth	751030 039	751030 039	751030 039	751030 039	751030 039	751030 039	751030 039 Pyrene	751030 039 Strontum
	Actual Easting	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144.337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144.337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144.337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144.337	2084144 337	2084144 337
	Location Code	CH48-025	Π	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025
	IHSS/PAC/UBC Site	CERCLA Tank 16 (Tanks 66 and 67)							-	-																						

Table 6
Tanks 14 and 16 Characterization Soil Sampling Results

	Units	ug/kg	mg/kg	pCı/g	pCı/g	pCI/g	ug/kg	pC/g	ug/kg	pCI/g	ug/kg	ug/kg	pCI/g	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	pC1/g	ug/kg	mg/kg	pCt/g	pCI/g	PC1/g
	Ecological AL	37500	67.8	1800	1900	1600	-	1900	•	3800	•	•	1900	•	800000	25700	1010000	1010000	-	1		•	•	-	•	•	3800	•	8.29	1800	1900	1600
	WRW AL	615000	2750	300	8	351	2040000	76	3090000	50	20400000	40800000	76	204000000	34900	3490	34900	349000	3490000	3490	2950000	73700000	27200000	40800000	34900	3090000	50	22100000	2750	300	80	351
	Depth End	3	3	3	3	3	3	0.5	0.5	0.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
23	Depth Start	2	2	2	2	2	2	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
compar Similaring the thompson and or r	Background Mean + 2 SD	•	3 040	2 640	0 120	1 490	-	0.023	-	0 066	-	-	0 0 0 0 0	-	-		-	-	_			-	-	•	_	_	0.020	_	3 040	2 640	0 120	1 490
	Detection Limit	909	1.6	3 442	0 3533	3 442	12.1	1 293	6 82	1 293	35	34	4 006	26	27	44	32	35	30	27	39	23	25	37	25	35	4 006	150	1.6	2 051	0 1569	2 051
merci vener	Result	116	21	7 419	0 5346	7 419	22.6	1689	191	1,367.95	120	250	7819	290	420	360	260	320	450	26	150	3200	1100	200	210	150	6,320.99	066	7.1	4 319	0 2184	4 319
Laims 14 and 10 Chai	Analyte	Tetrachloroethene	Uranıum, Total	Uranıum-234	Uranum-235	Uranıum-238	Xylene	Americium-241	Naphthalene	Plutomum-239/240	2-Methylnaphthalene	Acenaphthene	Americium-241	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Plutomum-239/240	Pyrene	Uranıum, Total	Uranum-234	Uranium-235	Uranium-238
	Actual Northing	751030 039	751030 039	751030 039	751030 039	751030 039 Uranium-238	751030 039	751041.813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813	751041 813
	Actual Easting	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084144 337	2084142 789	2084142 789	2084142.789	2084142 789	2084142 789	2084142.789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142 789	2084142.789	2084142 789	2084142 789	2084142 789
	Location Code	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-025	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026	CH48-026
	IHSS/PAC/UBC Site																															

Table 7
IHSS Group 700-4 Recent Surface Water Results

Analyte	RFCA AL	GS11	SW093	SW120	GS44
Plutonium-239/240 (pCi/g)	0 15	No discharge	0 00 - 0 033	0 006 – 0 070	0 002 – 0 036
Americium-241 (pCi/g)	0 15	No discharge	0 00 -0 088	0 001 – 0 057	0 008 - 0 013
Total Uranium (pCi/g)	10	No discharge	2 563 – 4 159	1 437 – 3 395	0 154 – 2 983
Arsenic	50	No discharge	No analyses	Nondetect - 4 20	2 10 – 4 30

Tanks 14 and 16 Soil Confirmation Sampling Results

Units	ug/kg	ug/kg	ug/kg	pC1/g	ug/kg	pC1/g	mg/kg	pC1/g	pC1/g	pC1/g		ug/kg	mg/kg	pC1/g	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	pC1/g	ug/kg	mg/kg	, ,
Ecological AL	NA	NA	211000	1900	39500	3800	8 19	1800	1900	1600		NA	NA	1900	800000	NA	ΥN	NA	39500	NA	3800	NA	NA	
WRW AL	17000	345000	102000000	76	2530000	50	2750	300	8	351		40800000	228000	76	34900	268	3490000	27200000	2530000	3090000	50	22100000	613000	
Depth End (ft)	2	2	2	2	2	2	2	2	2	2		4	4	4	4	4	4	4	4	4	4	4	4	•
Depth Start (ft)	2	2	2	2	2	2	2	2	2	2		4	4	4	4	4	4	4	4	4	4	4	4	•
Background Mean + 2 SD	NA	NA	NA	0 02	NA	0 02	3.04	2 64	0 12	1 49		ΝΑ	16902 000	0 023	NA	16 990	NA	NA	NA	Ϋ́	9900	NA	48 940	1000
Detection Limit	13	1.4	5.5	0 238	0 95	0 179	4 94505	1 665	0 1249	1 665		39 00	6 10	80 0	31 00	0 19	35 00	29 00	660	1 10	0 17	170 00	0.07	
Result	17	3.4	13	6.74	2.2	5 68	15 1262	5 093	0 2498	5 093		48 00	19000 00	57 50	26 00	17 00	80 00	180 00	1 50	1 70	44 90	180 00	55 00	
Analyte	2084152 45 1,1-Dichloroethene	2084152 45 1,2-Dichloropropane	Acetone	2084152 45 Americium-241	2084152 45 Methylene chloride	2084152 45 Plutonium-239/240	2084152 45 Uranium, Total	2084152 45 Uranium-234	Uranium-235	Urantum-238		751051 26 Acenaphthene	Alumnum	751051 26 Americium-241	Benzo(a)anthracene	Chromum	Chrysene	Fluoranthene	751051 26 Methylene chlonde	Naphthalene	751051 26 Plutonium-239/240	Pyrene	Strontum	TT
Actual Northing	2084152 45	2084152 45	2084152 45 Acetone	2084152 45	2084152 45	2084152 45	2084152 45	2084152 45	2084152 45 Uranium-23	2084152 45 Uranium-23		751051 26	751051 26	751051 26	751051 26 Benzo(a)antl	751051 26 Chromum	751051 26 Chrysene	751051 26	751051 26	751051 26 Naphthalene	751051 26	751051 26 Pyrene	751051 26 Strontum	26 130136
Actual Easting	751019 144	751019 144	751019 144	751019 144	751019 144	751019 144	751019 144	751019 144	751019 144	751019 144		2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	2084143 870	000 01140 070
Location Code	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050	CH48-050		CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	CH48-041	110 011
IHSS/PAC/U BC Site	Tank 14 (Tank 68)										Tank 16 (Tanks 66 and	(29												

Table 8
Tanks 14 and 16 Soil Confirmation Sampling Results

Units	mg/kg	pCı/g	mg/kg	ug/kg	pC1/g	mg/kg	mg/kg	pCı/g	pCs/g	pC1/g	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	pCi/g	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
Ecological AL	NA	1900	NA	39500	3800	NA	8 29	1800	1900	1600	NA	433000	NA	NA	NA	1900	NA	800000	25700	1010000	1010000	2 15	NA	NA	NA	NA
WRW AL	228000	76	268	2530000	50	613000	2750	300	8	351	17000	192000000	20400000	16400000	40800000	76	204000000	34900	3490	34900	349000	921	3490000	2950000	27200000	40800000
Depth End (ft)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Depth Start (ft)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Background Mean + 2 SD	16902 000	0 023	16 990	NA	990 0	48 940	5 980	2 253	0 094	2 000	NA	NA	NA	NA	NA	0 023	NA	ΝΑ	NA	NA	NA	996 0	NA	NA	NA	NA
Detection Limit	5 70	0 22	0 18	1 00	0 0.	0 07	96 90	2 32	0 20	2 32	1 30	5 60	38 00	4 70	37 00	0 14	28 00	29 00	48 00	34 00	38 00	0 12	33 00	43 00	27 00	40 00
Result	18000 00	11 30	17 00	1 50	7 00	52 00	14 95	5 03	0 42	5 03	1 30	7 00	110 00	6 20	350 00	226 00	430 00	580 00	480 00	350 00	430 00	1 10	00 009	170 00	1400 00	310 00
Analyte	Aluminum	Americium-241	Chromum	Methylene chloride	Plutonium-239/240	Strontium	Uranıum, Total	751043 89 Uranum-234	Uranium-235	751043 89 Uranium-238	1,1-Dichloroethene	2-Butanone	2-Methylnaphthalene	4-Methyl-2-pentanone	Acenaphthene	Americium-241	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Beryllum	Chrysene	Dibenzofuran	Fluoranthene	Fluorene
Actual Northing	751043 89	751043 89	751043 89	751043 89 Methylene	751043 89	751043 89 Strontum	751043 89	751043 89	751043 89	751043 89	7510378	7510378	751037 8	751037 8	751037 8	751037.8	7510378	7510378	7510378	7510378	7510378	751037 8	7510378	751037 8	7510378	7510378
Actual Easting	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144 159	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144	2084144
Location Code	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-042	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043	CH48-043
IHSS/PAC/U BC Site	)	J		)	)	)	)	)	)	)	)	)	)	)	)	)	)	)	וֹ	)	<u> </u>	)	)	)	)	

Table 8
Tanks 14 and 16 Soil Confirmation Sampling Results

Actual Au Northing 751037 8 Indeno(1,2 751037 8 Iron 751037 8 Methylene	Actual As Northing 151037 8 Indeno(1,2 751037 8 Iron 751037 8 Methylene 751037 8 Methylene	An Indeno(1,2 Iron Methylene	Analyt Indeno(1,2,3-cd Iron Methylene chlor	nalyte	Result 250 00 34000 00 1 50	Detection Limit 27 00 1 60 0 96	Background Mean + 2 SD NA 18037 000 NA	Depth Start (ft)	Depth End (ft) 4 4 4 4 4	WRW AL 34900 307000 2530000	Ecological AL NA NA 39500	Units  ug/kg  mg/kg
CH48-043 CH48-043 CH48-043		2084144 2084144 2084144	751037 8 751037 8 751037 8	Naphthalene Nickel Plutomum-239/240	260 00 29 00 93 20	38 00 0 23 0 16	NA 14 910 0 066	4 4	4 4	3090000 20400 <b>50</b>	NA 3800	ug/kg mg/kg pCu/g
CH48-043 CH48-043		2084144	751037 8 751037 8	Pyrene Strontrum	1400 00	160 00	NA 48 940	4	4 4	22100000 613000	NA NA	ug/kg mg/kg
CH48-043 CH48-043		2084144	751037 8 751037 8	Uranıum, Total Uranıum-234	6 71	4 16	5 980 2 253	4	4 4	300	8 <i>L</i> 9	mg/kg pCu/g
CH48-043 CH48-043		2084144	751037 8 751037 8	Uranium-235 Uranium-238	0 34	0.18	0 094	4 4	4 4	8	1900	pCI/g
CH48-043 CH48-044		2084144	751037 8	Zınc	78 00	0.53	73.760 NA	4 4	4 4	307000	AN AN	mg/kg ue/kg
CH48-044		2084131	$\Box$	Americaum-241	206 00	0.13	0.023	4	4	76	1900	pC/g
CH48-044 CH48-044		2084131 2084131	751037 3 751037 3	Anthracene Benzo(a)anthracene	130 00 230 00	29 00	NA AN	4 4	4 4	34900	800000	ug/kg ug/kg
CH48-044 CH48-044	+	2084131	751037 3	Benzo(a)pyrene Benzo(b)fluoranthene	200 00	33 00	AZ AZ	4 4	4 4	3490	25700	ug/kg ug/kg
CH48-044		2084131	П	Benzo(k)fluoranthene	190 00	37 00	NA	4	4	349000	1010000	ug/kg
CH48-044 CH48-044		2084131	751037 3 751037 3	Beryllium Chrysene	120	32 00	0 966 NA	4 4	4 4	921 3490000	2 15 NA	mg/kg ug/kg
CH48-044	+	2084131	Т	Dibenzofuran	20 00	42 00	NA	4	4	2950000	NA	ug/kg
CH48-044 CH48-044		2084131	751037 3 751037 3	Fluoranthene Fluorene	83 00	39 00	NA AN	4 4	4	27200000	NA NA	ug/kg ug/kg
CH48-044		2084131	7510373	Indeno(1,2,3-cd)pyrene	120 00	26 00	NA	4	4	34900	NA	ug/kg

Table 8
Tanks 14 and 16 Soil Confirmation Sampling Results

			\$ •	taling 14 and 10 Doil				2				
IHSS/PAC/U BC Site	Location Code	Actual Easting	Actual Northing	Analyte	Result	Detection Limit	Background Mean + 2 SD	Depth Start (ft)	Depth End (ft)	WRW AL	Ecological AL	Units
	CH48-044	2084131	751037 3	Iron	22000 00	1 60	18037 000	4	4	307000	ΑN	mg/kg
	CH48-044	2084131	7510373	751037 3 Methylene chloride	1 50	96 0	NA	4	4	2530000	39500	ug/kg
	CH48-044	2084131	751037 3 Nickel	Nickel	17 00	0 22	14910	4	4	20400	ΑN	mg/kg
	CH48-044	2084131	751037.3	751037.3 Plutonium-239/240	61 10	0 14	990 0	4	4	50	3800	pCi/g
	CH48-044	2084131	751037 3 Pyrene	Pyrene	550 00	160 00	NA	4	4	22100000	NA	ug/kg
	CH48-044	2084131	751037 3	751037 3 Uranium-235	0 14	0 12	0 094	4	4	8	1900	pC1/g
	CH48-044	2084131	751037 3 Zinc	Zinc	74 00	0.51	13 760	4	4	307000	NA ,	mg/kg
	CH48-045	2084130 56	751025 5	751025 5 Americium-241	31 47	0.65	0 023	3	4	76	1900	pC1/g
	CH48-045	2084130 56	751025 5	751025 5 Plutonium-239/240	179 38	0.65	990 0	3	4	50	3800	pCi/g
	CH48-045	2084130 56	751025 5	751025 5 Uranium-235	0 11	0 10	0 094	3	4	8	1900	pC1/g
	CH48-046	2084140 32	751039 77	751039 77   Americium-241	6 57	0 58	0 023	3	4	9/	1900	pC1/g
	CH48-046	2084140 32	751039 77	751039 77 Plutonium-239/240	37 45	0 58	990 0	3	4	50	3800	pC1/g
	CH48-046	2084140 32	751039 77	751039 77 Uranıum, Total	11 39	4 96	2 980	3	4	2750	67.8	mg/kg
	CH48-046	2084140 32	751039 77	751039 77 Uranıum-234	3 84	1 67	2 253	3	4	300	1800	pC1/g
	CH48-046	2084140 32	751039 77	751039 77   Uranium-235	0 23	0 13	0 094	3	4	8	1900	pC1/g
	CH48-046	2084140 32	751039 77 Uranium-2	Uranium-238	3 84	1 67	2 000	3	4	351	1600	pC1/g

Table 9
RFCA Radionuclide SORs for Confirmation Samples

Location	Start Depth (ft)	End Depth (ft)	SOR
CH48-041	4 0	4 0	8 696
CH48-042	4 0	4 0	0 771
CH48-043	4 0	4 0	24 781
CH48-044	4 0	4 0	40 201
CH48-045	3 0	4 0	2 648
CH48-046	3 0	4 0	0 625
CH48-050	20	2.0	1 125

Table 10 Sampling Summary

Gategory ,	Characterization : Samples	Tank Samples	. Communicities.
Number of Sampling Locations	141	3	6
Number of Samples	487	9	18
Number of Radionuclide Analyses	163	3	6
Number of Metal Analyses	140	0	6
Number of VOC Analyses	44	0	6
Number of SVOC Analyses	92	3	6
Number of PCB Analyses	22	0	0
Number of Nitrate Analyses	26	0	0

Table 11 Surface Soil Characterization Summary Statistics

1,1-Dichloroethene	Samples	Detection Frequency	Average	Maximum	Detection Limit	Background	WRW AL	Ecological AL	Unit
	J	3 45%	1 30	13	1 30		17000	ı	ug/kg
1,2-Dichloropropane	29	3 45%	12 00	12	5 87	•	345000	•	ug/kg
2-Butanone	29	%069	58 50	110	61 30	ı	192000000	433000	ug/kg
2-Methylnaphthalene	8	9 38%	281 67	910	38 50	•	20400000	•	ug/kg
4-Methyl-2-pentanone	29	17 24%	165 24	889	49 72	ı	16400000	•	ug/kg
Acenaphthene	22	35 94%	432 04	4600	48 52	1	40800000	•	ug/kg
Acetone	29	62 07%	29 39	120	113 89		102000000	211000	ug/kg
Aluminum	8	20 00%	22250 00	27000	4 30	16902 00	228000	r	mg/kg
Americium-241	108	24 07%	90 94	727 9	0.78	0 02	91	1900	pC1/g
Anthracene	29	37 50%	746 04	6200	00 89	•	204000000	,	ug/kg
Antimony	06	%199	10 91	19.2	7 00	0 47	409	ı	mg/kg
Aroclor-1254	20	45 00%	68 65	96	4 86	•	12400	371000	ug/kg
Aroclor-1260	20	20 00%	42 25	74	5 35	•	12400	ſ	ug/kg
Arsenic	06	%EE E9	13 47	30	4 92	10 09	22.2	216	mg/kg
Baruum	90	%00 06	645 73	1030	08 96	141 26	26400	•	mg/kg
Benzene	29	%069	1 10	12	5 52	•	205000	•	ug/kg
Benzo(a)anthracene	2	<b>92 63 %</b>	1338 12	22000	60 31		34900	800000	ug/kg
Benzo(a)pyrene	54	57 81%	1564 89	23000	82 84	•	3490	25700	ng/kg
Benzo(b)fluoranthene	64	48 44%	1489 10	19000	106 81	•	34900	1010000	ng/kg
Benzo(k)fluoranthene	64	46 88%	1583 60	20000	116 63	•	349000	1010000	ng/kg
Benzyl Alcohol	64	6 25%	295 00	520	91 50	•	307000000	•	ug/kg
Beryllium	8	%00 05	1 15	13	80 0	0 97	921	2 15	mg/kg
bis(2-	64	14 06%	273 33	830	76 22	ŧ	0000261	ľ	ga/gu
Ethylhexyl)phthalate		20/1	00 077	9017	0,00		11200000		
Butylbenzylphthalate	8	4 69%	1440 00	4100	69 50	•	147000000		ug/kg

Table 11 Surface Soil Characterization Summary Statistics

	Number Samples	Detection Frequency	Average	Maximum	Detection Limit	Background	WRW AL	Ecological AL	Unit
Cinomium	6	91 11%	40 91	104	18 79	16 99	268	1	mg/kg
Chrysene	25	65 63%	1565 26	24000	52 74	1	3490000	1	ug/kg
Cobalt	6	111%	11 00	11	80 0	10 01	1550	1	mg/kg
Copper	8	91 11%	103 26	291	3 91	18 06	40900	ı	mg/kg
Di-n-octylphthalate	2	3 13%	5530 50	11000	153 50	1	14700000	ı	ug/kg
Dibenz(a,h)anthracene	2	26 56%	722 00	5500	69 65	l	3490	ı	ug/kg
Dıbenzofuran	2	12 50%	524 63	2700	52 00	1	2950000	•	ug/kg
Ethylbenzene	29	13 79%	2 45	3	5 96	  -  -  -  -	4250000	-	ug/kg
Fluoranthene	2	64 06%	2770 07	42000	61 49	+	27200000		ug/kg
Fluorene	2	26 56%	473 29	3600	57 88	l	40800000	1	ug/kg
Indeno(1,2,3-cd)pyrene	2	48 44%	1153 94	16000	74 58	1	34900	1	ug/kg
Iron	8	%00 06	33203 70	00699	2081 94	18037 00	307000	•	mg/kg
Lead	06	4 44%	108 48	202	2 00	54 62	1000	25 6	mg/kg
Lithium	8	25 00%	14 00	14	0 14	11 55	20400		mg/kg
Manganese	06	62 22%	600 32	1680	155 18	365 08	3480	ŧ	mg/kg
Methylene chloride	29	13 79%	1 50	1.5	860	: !	2530000	39500	ug/kg
Naphthalene	93	26 88%	114 89	1000	22 95	•	3090000	•	ug/kg
Nickel	06	94 44%	41 75	9 68	11 31	1491	20400	•	mg/kg
Plutonium-239/240	108	23 15%	612 98	5884 672	080	200	95	3800	pC1/g
Pyrene	2	64 06%	2686 24	41000	06 96	1	22100000	•	ug/kg
Selenium	96	3 33%	1 52	16	0 87	1 22	5110	_	mg/kg
Strontium	06	94 44%	200 52	260	18 83	48 94	613000	•	mg/kg
Tetrachloroethene	29	3 45%	9 10	9.1	2 87	-	615000	37500	ug/kg
Tin	06	43 33%	5 57	16.5	3 81	2 90	613000		mg/kg
Toluene	29	13 79%	3 63	48	5.75	•	31300000	128000	ug/kg
Trichloroethene	56	3 45%	080	80	2 80	1	19600	209000	ug/kg

Table 11 Surface Soil Characterization Summary Statistics

Analyte	Number Samples	Detection Frequency	Average	Maximum	Detection Limit	Background	WRW AL	Ecological AL	Unit
Uranium, Total	632	25 47%	10 43	18 414	5 07	2 98	2750	67.8	mg/kg
Uranium-234	108	71 30%	3 79	62	1 82	2 25	300	1800	pC1/g
Uranium-235	108	70 37%	0 22	0 44	1 00	60 0	8	1900	pC1/g
Uranium-238	108	75 93%	3 69	29	181	2 00	351	1600	pC1/g
Vanadıum	06	64 44%	133 99	211	29 41	45 59	7150	433	mg/kg
Xylene	29	17 24%	10 32	11	11 98	•	2040000	•	ug/kg
Zınc	06	85 26%	159 44	450	<i>L</i> 9 8	13 <i>1</i> 6	307000	•	mg/kg

Table 12
Subsurface Soil Characterization Summary Statistics

Analyte Name	Number Samples	Detection Frequency	Average	Maximum	Detection Limit	Background	WRW AL	Ecological AL	Umt
1,1-Dichloroethene	49	2 04%	1 70	1.7	1 30	-	17000	-	ug/kg
1,2,4-Trichlorobenzene	88	1 14%	88 0	88 0	0 79	_	9230000	-	ug/kg
1,2-Dichloropropane	49	6 12%	6 42	9 61	4 60		345000	_	ug/kg
1,4-Dichlorobenzene	50	2 00%	170 00	170	5 00		840000	-	ug/kg
2-Butanone	49	4 08%	21 95	6 88	120 50	1	192000000	433000	ug/kg
2-Methylnaphthalene	39	%69 L	120 67	200	37 33	-	20400000	_	ug/kg
4-Methyl-2-pentanone	49	16 33%	63 63	303	55 36	-	16400000	1	ug/kg
Acenaphthene	39	%69 L	256 67	310	40 33	•	40800000	-	ug/kg
Acetone	49	%58 19	37 53	460	106 86	•	102000000	211000	ug/kg
Americium-241	141	12 77%	649 22	6115	5.76	0 02	9/	1900	pCı/g
Anthracene	39	12 82%	222 00	290	53 60	1	204000000	_	ug/kg
Aroclor-1254	13	269 L	13 00	13	4 60	•	12400	371000	ug/kg
Arsenic	83	21 69%	16 72	24 8	4 75	13 14	22.2	216	mg/kg
Barium	83	67 47%	664 20	1700	98 00	289 38	26400	•	mg/kg
Benzene	49	2 04%	1 00	1	5 40	1	205000	•	ug/kg
Benzo(a)anthracene	38	%6 <i>L</i> 51	325 00	480	37 50	_	34900	800000	ug/kg
Benzo(a)pyrene	38	15 79%	310 00	520	52 00	•	3490	25700	ug/kg
Benzo(b)fluoranthene	38	15 79%	251 17	450	56 33		34900	1010000	ug/kg
Benzo(k)fluoranthene	38	15 79%	269 50	440	61 17	•	349000	1010000	ug/kg
Benzyl Alcohol	38	5 26%	00 086	1600	91 00		307000000	-	ug/kg
Beryllium	26	11 54%	7 03	15	0 09	14.2	921	2 15	mg/kg
bis(2-Ethylhexyl)phthalate	38	268 L	233 33	440	76 67	•	1970000	_	ug/kg
Butylbenzylphthalate	38	2 63%	110 00	110	68 00		147000000	-	ug/kg
Cadmium.	83	4 82%	869	12	0.79	17	962	•	mg/kg
Chloroform	49	2 04%	9 80	86	6 50	•	19200	101000	ug/kg
Chromium	83	2 41%	89 95	106	20 00	68 27	268	-	mg/kg
Chrysene	38	15 79%	371 67	580	35 00	1	3490000	-	ug/kg
Соррег	83	62 65%	104 01	234	4 00	38 21	40900	_	mg/kg
Dr-n-butylphthalate	38	10 53%	958 75	3200	46 25	,	73700000		ug/kg

Table 12 Subsurface Soil Characterization Summary Statistics

Detection Average Maximum  Frequency 100 120		Maxim	E .	Detection Limit	Background	WRW AL	Ecological AL	Unit
7 89%	1	145 67	190	46 00	•   •	2950000		ug/kg ug/kg
-	3	33 86	144	8 60	•	4250000		ug/kg
18 42% 70	70	708 57	1400	37.57	-	27200000	•	ug/kg
7 89% 20	7(	203 33	240	46 00	_	40800000	•	ug/kg
13 16%	I	193 20	260	39 20	_	34900		ug/kg
3 61% 52	52	52300 00	72600	2190 00	41046 52	307000	1	mg/kg
18 07%		33 92	55	6 10	24 97	1000	25 6	mg/kg
1 20%   15	11	1580 00	1580	158 00	901 62	3480	-	mg/kg
8 16%		1 73	2.2	0 90		2530000	39500	ug/kg
29 89%		33 07	270	9 49		3090000	.	ug/kg
1 20%	7	71 90	71.9	12 00	62 21	20400	1	mg/kg
41 18%		4 13	12	0 24	-	1000000		mg/kg
5 26% 11	11	115 00	120	51 50	•	613000000	•	ug/kg
11 89%   506	200	5060 51	49412 44	5 80	0 02	50	3800	pCI/g
18 42% 68	89	684 29	1300	87 71	•	22100000		ug/kg
10 84% 2	7	274 22	338	17 79	211 38	613000	•	mg/kg
6 12%		5 77	116	5 99		615000	37500	ug/kg
12 24%		67 18	193	777	ı	31300000	128000	ug/kg
2 04%		1 00	1	6 50	•	19600	209000	ug/kg
29 11%		10 83	63 5877	4 74	3 04	2750	8 29	mg/kg
%82 69		4 30	21 41	1 83	2 64	300	1800	pC1/g
%90 69		0 24	0 634	0 34	0 12	∞	1900	pC1/g
		4 8	21 41	1 78	1 49	351	1600	pC1/g
66 27% 1	1	141 44	235	30 44	88 49	7150	433	mg/kg
22 45%		132 36	1040	13 86	•	2040000	•	ug/kg
13 25% 2	7	240 36	582	8 24	139 1	307000	•	me/kg

Table 13
Waste Characterization Summary

Container Number	Extended Number	Container Type	Volume (cu.ft.)	Waste Type	Gross Weight (lbs)	Status	DC IDC	Waste Codes	Disposition
B07252	02-69103	IP1	06	LLW	5480	Certified (C)	374	NA	Anticpated Ship Data 12/18/03
B07250	02-69102	IP1	8	LLW	5730	D C	374	NA	Anticpated Ship Data 12/18/03
B07247	02-69106	IP1	06	LLW	0009	Ü	374	NA	Anticpated Ship Data 12/18/03
B07241	02-69108	IP1	06	LLW	7204	၁	374	NA	Anticpated Ship Data 12/18/03
B07240	02-69107	IP1	06	TLW	6094	Ü	374	NA	Anticpated Ship Data 12/18/03
B07048	02-69203	IP1	8	LLW	5684	ر ر	374	NA	Anticpated Ship Data 12/18/03
B06992	02-69104	IP1	06	LLW	2080	ນ	374	NA	Anticpated Ship Data 12/18/03
B06987	02-69201	IP1	06	LLW	6448	ر ر	374	NA	Anticpated Ship Data 12/18/03
B07256	02-69207	IP1	06	LLW	5620	S	374	NA	Anticpated Ship Data 12/18/03
B07251	02-69204	IP1	8	LLW	6146	۲	374	NA	Anticpated Ship Data 12/18/03
B07244	02-69202	IP1	06	LLW	6444	၁	374	NA	Anticpated Ship Data 12/18/03
B07043	02-69105	IP1	8	LLW	6810	D	374	NA	Anticpated Ship Data 12/18/03
B07042	02-69208	IP1	8	LLW	6224	C	374	NA	Anticpated Ship Data 12/18/03
B07040	02-69206	IP1	8	LLW	6244	C	374	NA	Anticpated Ship Data 12/18/03
B06988	02-69205	IP1	8	LLW	2866	C	374	NA	Anticpated Ship Data 12/18/03
B06961	02-69200	IP1	8	LLW	2860	C	371	NA	Anticpated Ship Data 12/18/03
B07252	02-69103	IP1	8	LLW	5480	C	374	NA	Anticpated Ship Data 12/18/03
B07250	02-69102	IP1	06	LLW	5730	၁	374	NA	Anticpated Ship Data 12/18/03

Table 13
Waste Characterization Summary

Disposition	Anticpated Ship Data 12/18/03	Anticipated Ship Date 12/31/03															
	Anticpate	Anticipate															
Waste Codes	NA	NA	NA	NA	NA	NA	NA	NA									
IDC	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374
Status	C	ပ	ပ	၁	U	ပ	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Gross Weight (lbs)	0009	7204	6094	5684	2080	6448	2522	2520	2244	40,800	38,640	43,600	42,540	39,460	40,680	41,020	40,960
Waste Type	LLW	LLW	LLW	LLW	LLW	LLW	LLW	LLW									
Volume (cu.ft.)	06	06	06	06	06	06	4	44	44	675	675	675	675	675	675	675	675
Container Type	IP1	IP1	IPI	IP1	IPI	IPI	IP1	IP1	IP1	ILM							
Extended Number	02-69106	02-69108	02-69107	02-69203	02-69104	02-69201	0771-07509	0771-07511	0771-07510	0771-07470	0771-07471	0771-07473	0771-07474	0771-07475	0771-07476	0771-07477.	0771-07472
Container Number	B07247	B07241	B07240	B07048	B06992	B06987	X31781	X31795	X31793	LO3200	L03201	L03203	L03204	L03205	L03206	L03207	L03202

Table 14
No Longer Representative Sampling Locations

 NLR Sampling
 Locations
CH48-025
 CH48-026
CH48-027
CH48-017

Table 15
Laboratory Control Sample Evaluation

		n T		mpre zvara		8 4 144.	
CAS No	Analyte	Minimum	Maximum	Number of Analytes	Number of Laboratory Batches	Onit	Accountage of the contract of
71-55-6	1,1,1-Trichloroethane	83 91	1168	18	17	%REC	SW-846 8260
79-34-5	1,1,2,2-Tetrachloroethane	71	127 9	18	17	%REC	SW-846 8260
79-00-5	1,1,2-Trichloroethane	75	123 2	18	17	%REC	SW-846 8260
75-34-3	1,1-Dichloroethane	79 69	1166	18	17	%REC	SW-846 8260
75-35-4	1,1-Dichloroethene	74	134 8	18	17	%REC	SW-846 8260
120-82-1	1,2,4-Trichlorobenzene	87	140 9	18	17	%REC	SW-846 8260
120-82-1	1,2,4-Trichlorobenzene	58	76	21	17	%REC	SW-846 8270
95-50-1	1,2-Dichlorobenzene	85	1147	18	17	%REC	SW-846 8260
107-06-2	1,2-Dichloroethane	74 31	111 2	18	17	%REC	SW-846 8260
71-55-6	1,1,1-Trichloroethane	83 91	1168	18	17	%REC	SW-846 8260
78-87-5	1,2-Dichloropropane	76 93	113 6	18	17	%REC	SW-846 8260
106-46-7	1,4-Dichlorobenzene	87	121 3	18	17	%REC	SW-846 8260
95-95-4	2,4,5-Trichlorophenol	57	80	21	17	%REC	SW-846 8270
88-06-2	2,4,6-Trichlorophenol	58	80	21	17	%REC	SW-846 8270
120-83-2	2,4-Dichlorophenol	60	76	21	17	%REC	SW-846 8270
105-67-9	2,4-Dimethylphenol	60	79	21	17	%REC	SW-846 8270
51-28-5	2,4-Dinitrophenol	37	81	21	17	%REC	SW-846 8270
121-14-2	2,4-Dinitrotoluene	59	83	21	17	%REC	SW-846 8270
606-20-2	2,6-Dinitrotoluene	60	78	21	17	%REC	SW-846 8270
78-93-3	2-Butanone	56 63	111	18	17	%REC	SW-846 8260
91-58-7	2-Chloronaphthalene	59	73	21	17	%REC	SW-846 8270
95-57-8	2-Chlorophenol	62	75	21	17	%REC	SW-846 8270
91-57-6	2-Methylnaphthalene	59	75	21	17	%REC	SW-846 8270
95-48-7	2-Methylphenol	57	71	21	17	%REC	SW-846 8270
88-74-4	2-Nitroaniline	57	77	21	17	%REC	SW-846 8270
91-94-1	3,3'-Dichlorobenzidine	36	99	21	17	%REC	SW-846 8270
534-52-1	4,6-Dinitro-2-methylphenol	47	80	21	17	%REC	SW-846 8270
106-47-8	4-Chloroaniline	19	52	21	17	%REC	SW-846 8270
108-10-1	4-Methyl-2-pentanone	80	123 5	18	17	%REC	SW-846 8260
106-44-5	4-Methylphenol	55	74	21	17	%REC	SW-846 8270
100-02-7	4-Nitrophenol	59	89	21	17	%REC	SW-846 8270
83-32-9	Acenaphthene	57	72	21	17	%REC	SW-846 8270
67-64-1	Acetone	43 48	105 9	18	17	%REC	SW-846 8260
7429-90-5	Aluminum	87	106	10	10	%REC	SW-846 6010
120-12-7	Anthracene	58	76	21	17	%REC	SW-846 8270
7440-36-0	Antimony	88	98	10	10	%REC	SW-846 6010
12674-11-2	Aroclor-1016	73	112	12	10	%REC	SW-846 8082
11096-82-5	Aroclor-1260	83	108	12	10	%REC	SW-846 8082

Table 15
Laboratory Control Sample Evaluation

CAS No	Analyte:	Minimum	Maximum	Number of Analytes	Number of Laboratory Batches	Unit 🕏	Test Method
7440-38-2	Arsenic	87	99	10	10	%REC	SW-846 6010
7440-39-3	Barium	94	105	10	10	%REC	SW-846 6010
71-43-2	Benzene	79	1125	18	17	%REC	SW-846 8260
56-55-3	Benzo(a)anthracene	55	74	21	17	%REC	SW-846 8270
50-32-8	Benzo(a)pyrene	56	74	21	17	%REC	SW-846 8270
205-99-2	Benzo(b)fluoranthene	52	76	21	17	%REC	SW-846 8270
207-08-9	Benzo(k)fluoranthene	54	75	21	17	%REC	SW-846 8270
65-85-0	Benzoic Acid	10	73	21	17	%REC	SW-846 8270
100-51-6	Benzyl Alcohol	61	77	21	17	%REC	SW-846 8270
7440-41-7	Beryllium	95	107	10	10	%REC	SW-846 6010
111-44-4	bis(2-Chloroethyl)ether	45	92	21	17	%REC	SW-846 8270
39638-32-9	bis(2-Chloroisopropyl)ether	59	76	21	17	%REC	SW-846 8270
117-81-7	bis(2-Ethylhexyl)phthalate	56	76	21	17	%REC	SW-846 8270
75-27-4	Bromodichloromethane	84 19	1183	18	17	%REC	SW-846 8260
75-25-2	Bromoform	80	123 8	18	17	%REC	SW-846 8260
74-83-9	Bromomethane	57 22	151 3	18	17	%REC	SW-846 8260
85-68-7	Butylbenzylphthalate	60	77	21	17	%REC	SW-846 8270
7440-43-9	Cadmium	91	101	10	10	%REC	SW-846 6010
75-15-0	Carbon Disulfide	83 92	144 3	18	17	%REC	SW-846 8260
56-23-5	Carbon Tetrachloride	78 84	1162	_18	17	%REC	SW-846 8260
108-90-7	Chlorobenzene	76 41	1149	18	17	%REC	SW-846 8260
75-00-3	Chloroethane	68 58	161 1	18	17	%REC	SW-846 8260
67-66-3	Chloroform	83 58	118	18	17	%REC	SW-846 8260
74-87-3	Chloromethane	63 64	181 5	18	17	%REC	SW-846 8260
7440-47-3	Chromium	92	104	10	10	%REC	SW-846 6010
218-01-9	Chrysene	55	77	21	17	%REC	SW-846 8270
10061-01-5	cis-1,3-Dichloropropene	69 4	117	18	17	%REC	SW-846 8260
7440-48-4	Cobalt	89	100	10	10	%REC	SW-846 6010
7440-50-8	Copper	90	102	10	10	%REC	SW-846 6010
84-74-2	D1-n-butylphthalate	61	78	21	17	%REC	SW-846 8270
117-84-0	Dı-n-octylphthalate	55	79	21	17	%REC	SW-846 8270
53-70-3	Dibenz(a h)anthracene	49	79	21	17	%REC	SW-846 8270
132-64-9	Dibenzofuran	58	77	21	17	%REC	SW-846 8270
124-48-1	Dibromochloromethane	87	120 5	18	17	%REC	SW-846 8260
84-66-2	Diethylphthalate	62	82	21	17	%REC	SW-846 8270
131-11-3	Dimethylphthalate	60	75	21	17	%REC	SW-846 8270
100-41-4	Ethylbenzene	81	1154	18	17	%REC	SW-846 8260
206-44-0	Fluoranthene	58	77	21	17	%REC	SW-846 8270
86-73-7	Fluorene	59	77	21	17	%REC	SW-846 8270

Table 15
Laboratory Control Sample Evaluation

CAS No	Analyte		Maximum	Number of Analytes	Number of Laboratory Batches	Unit	Test Method
118-74-1	Hexachlorobenzene	58	79	21	17	%REC	SW-846 8270
87 <b>-</b> 68-3	Hexachlorobutadiene	57	82	21	17	%REC	SW-846 8270
87-68-3	Hexachlorobutadiene	82	127 4	18	17	%REC	SW-846 8260
77-47-4	Hexachlorocyclopentadiene	46	84	21	17	%REC	SW-846 8270
67-72-1	Hexachloroethane	60	75	21	17	%REC	SW-846 8270
193-39-5	Indeno(1,2,3-cd)pyrene	50	74	21	17	%REC	SW-846 8270
7439-89-6	Iron	93	105	10	10	%REC	SW-846 6010
78-59-1	Isophorone	63	98	21	17	%REC	SW-846 8270
7439-92-1	Lead	91	101	10	10	%REC	SW-846 6010
7439-93-2	Lithium	90	104	10	10	%REC	SW-846 6010
7439-96-5	Manganese	91	103	10	10	%REC	SW-846 6010
7439-97-6	Mercury	90	111	9	9	%REC	SW-846 6010
75-09-2	Methylene chloride	76	130 8	18	17	%REC	SW-846 8260
7439-98-7	Molybdenum	87	98	10	10	%REC	SW-846 6010
86-30-6	n-Nitrosodiphenylamine	66	87	21	17	%REC	SW-846 8270
621-64-7	n-Nitrosodipropylamine	59	74	21	17	%REC	SW-846 8270
91-20-3	Naphthalene	59	72	21	17	%REC	SW-846 8270
91-20-3	Naphthalene	79	125 8	18	17	%REC	SW-846 8260
7440-02-0	Nickel	91	100	10	10	%REC	SW-846 6010
14797-55-8	Nitrate	96	101	12	5	%REC	SW9056 OR E300 0 PREP E300 0
98-95-3	Nitrobenzene	62	76	21	17	%REC	SW-846 8270
87-86-5	Pentachlorophenol	34	77	21	17	%REC	SW-846 8270
108-95-2	Phenol	58	75	21	17	%REC	SW-846 8270
129-00-0	Pyrene	56	72	21	17	%REC	SW-846 8270
7782-49-2	Selenium	82	102	10	10	%REC	SW-846 6010
7440-22-4	Silver	91	102	10	10	%REC	SW-846 6010
7440-24-6	Strontium	93	103	10	10	%REC	SW-846 6010
100-42-5	Styrene	80	1107	18	17	%REC	SW-846 8260
127-18-4	Tetrachloroethene	76	153	18	17	%REC	SW-846 8260
7440-31-5	Tın	87	98	10	10	%REC	SW-846 6010
108-88-3	Toluene	77	124	18	17	%REC	SW-846 8260
10061-02-6	trans-1,3-Dichloropropene	89	133 4	18	17	%REC	SW-846 8260
79-01-6	Trichloroethene	75 03	123 4	18	17	%REC	SW-846 8260
11-09-7	Uranium, Total	94	107	10	10	%REC	SW-846 6010
7440-62-2	Vanadium	91	103	10	_10	%REC	SW-846 6010
75-01-4	Vinyl chloride	59 35	195 7	18	17	%REC	SW-846 8260
1330-20-7	Xylene	80	1136	18	17	%REC	SW-846 8260
7440-66-6	Zinc	90	99	10	10	%REC	SW-846 6010

**Table 16 Surrogate Recovery Summary** 

Number of Samples	Analyte	Mınımum	Maximum	Unit Code
44	1,2-Dichloroethane -d4	86	129 5	%REC
44	Bromofluorobenzene	85 52	118 7	%REC
44	Toluene - d8	83	1161	%REC
SVOC Surrogate Re	coveries			
Number of Samples	Analyte	Mınımum	Maximum	Unit Code
76	2-Fluorobiphenyl	42	69	%REC
76	Nitrobenzene-d5	50	84	%REC
76	o-Fluorophenol	44	85	%REC
76	Terphenyl-d14	43	82	%REC

Table 17 Field Blank Summary

Sample QC Code	Test Method Name	Analyte	Maximum Detected Value	Unit
FB	SW-846 8260	2-Butanone	2 4	ug/L
TB	SW-846 8260	2-Butanone	2 9	ug/L
TB	SW-846 8260	Acetone	30	ug/L
ТВ	SW-846 8260	Acetone	20	ug/L
RNS	SW-846 6010	Aluminum	0 34	mg/L
RNS	SW-846 6010	Aluminum	0 048	mg/L
RNS	ALPHA SPEC	Americium-241	0 0484	pC1/L
RNS	SW-846 6010	Barium	0 0053	mg/L
ТВ	SW-846 8260	Benzene	2	ug/L
RNS	SW-846 6010	Beryllium	0 00066	mg/L
RNS	SW-846 6010	Cadmium	0 00038	mg/L
RNS	SW-846 6010	Chromium	0 0027	mg/L
RNS	SW-846 6010	Copper	0 011	mg/L
RNS	SW-846 6010	Copper	0 0017	mg/L
RNS	SW-846 6010	Iron	0 25	mg/L
RNS	SW-846 6010	Iron	0 074	mg/L
RNS	SW-846 6010	Lithium	0 0015	mg/L
RNS	SW-846 6010	Manganese	0 003	mg/L
FB	SW-846 8260	Naphthalene	0 8	ug/L
ТВ	SW-846 8260	Naphthalene	1 2	ug/L
TB	SW-846 8260	Naphthalene	1	ug/L
RNS	SW9056 OR E300 0	Nitrate	0 22	mg/L
RNS	ALPHA SPEC	Plutonium-239/240	0 0812	pCı/L
RNS	SW-846 6010	Strontium	0 0065	mg/L
ТВ	SW-846 8260	Toluene	6 09	ug/L
RNS	ALPHA SPEC	Uranium-234	0 129	pCı/L
RNS	GAMMA SPECTROSCOPY	Uranium-235	0 154	PCI/G-WET
RNS	GAMMA SPECTROSCOPY	Uranium-238	29	PCI/G-WET
RNS	GAMMA SPECTROSCOPY	Uranium-238	2 54	PCI/G-WET
ТВ	SW-846 8260	Xylene	3 6	ug/L
RNS	SW-846 6010	Zinc	0 021	mg/L

Field Blanks (Trip, Rinse, Field) results greater than detection limits (not \*U\* Qualified)

Table 18
Sample Matrix Spike Evaluation

		, · · · · · · · · · · · · · · · · · · ·	_	te Evaluation			· •
CAS No.	Analyte 🦃	Minimum	Maximum		Number of Laboratory Batches		Test Mathods.
71-55-6	1,1,1-Trichloroethane	61 28	105	15	15	%REC	SW-846 8260
79-34-5	1,1,2,2-Tetrachloroethane	0	102 5	15	15	%REC	SW-846 8260
79-00-5	1,1,2-Trichloroethane	17 38	97 48	15	15	%REC	SW-846 8260
75-34-3	1,1-Dichloroethane	61 6	105 5	15	15	%REC	SW-846 8260
75-35-4	1,1-Dichloroethene	49 72	153 9	15	15	%REC	SW-846 8260
120-82-1	1,2,4-Trichlorobenzene	35 82	83 46	15	15	%REC	SW-846 8260
120-82-1	1,2,4-Trichlorobenzene	44	68	16	16	%REC	SW-846 8270
95-50-1	1,2-Dichlorobenzene	49 8	90 2	15	15	%REC	SW-846 8260
107-06-2	1,2-Dichloroethane	69 31	111	15	15	%REC	SW-846 8260
78-87-5	1,2-Dichloropropane	63 26	124 4	15	15	%REC	SW-846 8260
106-46-7	1,4-Dichlorobenzene	50 21	90 7	15	15	%REC	SW-846 8260
95-95-4	2,4,5-Trichlorophenol	49	73	16	16	%REC	SW-846 8270
88-06-2	2,4,6-Trichlorophenol	49	74	16	16	%REC	SW-846 8270
120-83-2	2,4-Dichlorophenol	47	71	16	16	%REC	SW-846 8270
105-67-9	2,4-Dimethylphenol	49	74	16	16	%REC	SW-846 8270
1-28-5	2,4-Dinitrophenol	34	78	16	16	%REC	SW-846 8270
121-14-2	2,4-Dinitrotoluene	51	77	16	16		SW-846 8270
606-20-2	2,6-Dinitrotoluene	51	76	16	16		SW-846 8270
78-93-3	2-Butanone	0	152 1	15	15	%REC	SW-846 8260
91-58-7	2-Chloronaphthalene	48	70	16	16	%REC	SW-846 8270
95-57-8	2-Chlorophenol	47	72	16	16	%REC	SW-846 8270
91-57-6	2-Methylnaphthalene	45	70	16	16	%REC	SW-846 8270
95-48-7	2-Methylphenol	46	73	16	16	%REC	SW-846 8270
88-74-4	2-Nitroaniline	53	72	16	16	%REC	SW-846 8270
91-94-1	3,3 -Dichlorobenzidine	40	101	16	16	%REC	SW-846 8270
534-52-1	4,6-Dinitro-2-methylphenol	36	74	16	16	%REC	SW-846 8270
106-47-8	4-Chloroaniline	32	65	16	16	%REC	SW-846 8270
108-10-1	4-Methyl-2-pentanone	0	97 84	15	15	%REC	SW-846 8260
106-44-5	4-Methylphenol	48	73	16	16	%REC	SW-846 8270
100-02-7	4-Nıtrophenol	46	91	16	16	%REC	SW-846 8270
83-32-9	Acenaphthene	49	70	16	16	%REC	SW-846 8270
67-64-1	Acetone	0	165	15	15	%REC	SW-846 8260
7429-90-5	Aluminum	0	3730	9	9	%REC	SW-846 6010
120-12-7	Anthracene	52	72	16	16		SW-846 8270
7440-36-0	Antimony	33	69	9	9		SW-846 6010
12674-11-2	Aroclor-1016	66	116	10	10		SW-846 8082
1096-82-5	Aroclor-1260	59	111	10	10	%REC	SW-846 8082
7440-38-2	Arsenic	84	96	9	9	%REC	SW-846 6010

Table 18
Sample Matrix Spike Evaluation

CAS No.	Analyte	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Test Method
7440-39-3	Barium	78	107	9	9	%REC	SW-846 6010
71-43-2	Benzene	69 21	102	15	15	%REC	SW-846 8260
56-55-3	Benzo(a)anthracene	48	73	16	16	%REC	SW-846 8270
50-32-8	Benzo(a)pyrene	49	75	16	16	%REC	SW-846 8270
205-99-2	Benzo(b)fluoranthene	45	78	16	16	%REC	SW-846 8270
207-08-9	Benzo(k)fluoranthene	49	76	16	16	%REC	SW-846 8270
65-85-0	Benzoic Acid	1 7	62	16	16	%REC	SW-846 8270
100-51-6	Benzyl Alcohol	48	76	16	16	%REC	SW-846 8270
7440-41-7	Beryllium	89	122	9	9	%REC	SW-846 6010
111-44-4	bis(2-Chloroethyl)ether	40	123	16	16	%REC	SW-846 8270
39638-32-9	bis(2-Chloroisopropyl)ether	45	76	16	16	%REC	SW-846 8270
117-81-7	bis(2-Ethylhexyl)phthalate	50	77	16	16	%REC	SW-846 8270
75-27-4	Bromodichloromethane	64 91	105	15	15	%REC	SW-846 8260
75-25-2	Bromoform	61 18	104 5	15	15	%REC	SW-846 8260
74-83-9	Bromomethane	59 57	179 7	15	15	%REC	SW-846 8260
85-68-7	Butylbenzylphthalate	50	79	16	16	%REC	SW-846 8270
440-43-9	Cadmium	56	101	9	9	%REC	SW-846 6010
75-15-0	Carbon Disulfide	57 52	105 9	15	15	%REC	SW-846 8260
56-23-5	Carbon Tetrachloride	62 59	109	15	15	%REC	SW-846 8260
108-90-7	Chlorobenzene	52 44	104 7	15	15	%REC	SW-846 8260
75-00-3	Chloroethane	56 43	126 6	15	15	%REC	SW-846 8260
67-66-3	Chloroform	62 66	102	15	15	%REC	SW-846 8260
74-87-3	Chloromethane	48 98	161 5	15	15	%REC	SW-846 8260
7440-47-3	Chromium	90	273	9	9	%REC	SW-846 6010
218-01-9	Chrysene	47	72	16	16	%REC	SW-846 8270
10061-01-5	cis-1,3-Dichloropropene	74 38	125 8	15	15	%REC	SW-846 8260
7440-48-4	Cobalt	84	97	9	9	%REC	SW-846 6010
7440-50-8	Copper	65	113	9	9	%REC	SW-846 6010
84-74-2	Dı-n-butylphthalate	0	74	16	16	%REC	SW-846 8270
117-84-0	D1-n-octylphthalate	51	71	16	16	%REC	SW-846 8270
53-70-3	Dibenz(a h)anthracene	44	72	16	16	%REC	SW-846 8270
132-64 9	Dibenzoturan	50	73	16	16	%REC	SW-846 8270
124-48-1	Dibromochloromethane	68 56	102	15	15	%REC	SW-846 8260
84-66-2	Diethylphthalate	52	78	16	16	%REC	SW-846 8270
131-11-3	Dimethylphthalate	51	74	16	16	%REC	SW-846 8270
100-41 4	Ethylbenzene	53 36	100 7	15	15	%REC	SW-846 8260
206-44-0	Fluoranthene	48	87	16	16	%REC	SW-846 8270
86-73-7	Fluorene	49	71	16	16	%REC	SW-846 8270
118-74-1	Hexachlorobenzene	49	74	16	16	%REC	SW-846 8270

Table 18
Sample Matrix Spike Evaluation

CAS No.	Analyte	Minimum	Maximum		Number of Laboratory Batches	Unit	Test Method
87-68-3	Hexachlorobutadiene	49 52	82 93	15	15	%REC	SW-846 8260
87-68-3	Hexachlorobutadiene	43	68	16	16	%REC	SW-846 8270
77-47-4	Hexachlorocyclopentadiene	4.8	63	16	16	%REC	SW-846 8270
67-72-1	Hexachloroethane	44	71	16	16	%REC	SW-846 8270
193-39-5	Indeno(1,2,3-cd)pyrene	44	72	16	16	%REC	SW-846 8270
7439-89-6	Iron	0	2270	9	9	%REC	SW-846 6010
78-59-1	Isophorone	61	96	16	16	%REC	SW-846 8270
7439-92-1	Lead	85	103	9	9	%REC	SW-846 6010
7439-93-2	Lithium	89	104	9	9	%REC	SW-846 6010
7439-96-5	Manganese	0	124	9	9	%REC	SW-846 6010
7439-97-6	Mercury	22	110	8	8	%REC	SW-846 6010
75-09-2	Methylene chloride	71 69	1103	15	15	%REC	SW-846 8260
7439-98-7	Molybdenum	79	90	9	9	%REC	SW-846 6010
86-30-6	n-Nitrosodiphenylamine	56	90	16	16	%REC	SW-846 8270
621-64-7	n-Nitrosodipropylamine	44	74	16	16	%REC	SW-846 8270
91-20-3	Naphthalene	0	86 28	15	15		SW-846 8260
1-20-3	Naphthalene	45	69	16	16		SW-846 8270
7440-02-0	Nickel	85	129	9	9	%REC	SW-846 6010
14797-55-8	Nitrate	87	97	4	4		SW9056 OR E300 0 PREP E300 0
98-95-3	Nitrobenzene	50	77	16	16	%REC	SW-846 8270
87-86-5	Pentachlorophenol	17	63	16	16	%REC	SW-846 8270
108-95-2	Phenol	49	76	16	16	%REC	SW-846 8270
129-00-0	Pyrene	44	83	16	16	%REC	SW-846 8270
7782-49-2	Selenium	82	97	9	9	%REC	SW-846 6010
7440-22-4	Silver	77	165	9	9	%REC	SW-846 6010
127-18-4	Tetrachloroethene	60 17	92 21	11	11	%REC	SW-846 8260
7440-31-5	Tin	82	101	13	13	%REC	SW-846 6010
108-88-3	Toluene	63 59	91 78	11	11	%REC	SW-846 8260
7440-24-6	Strontium	84	109	9	9	%REC	SW-846 6010
100-42-5	Styrene	55 98	102	15	15	%REC	SW-846 8260
127-18-4	Tetrachloroethene	60 17	100 5	15	15		SW-846 8260
7440-31-5	Tin	81	91	9	9	%REC	SW-846 6010
108-88-3	Toluene	63 59	95 12	15	15	%REC	SW-846 8260
10061-02-6	trans-1 3-Dichloropropene	65 02	95 19	15	15	%REC	SW-846 8260
79-01-6	Trichloroethene	65 84	230	15	15	%REC	SW-846 8260
11-09-7	Uranium Total	87	100	9	9		SW-846 6010
7440-62-2	Vanadium	77	117	9	9		SW-846 6010
75-01-4	Vinyl chloride	44 8	1193	15	15		SW-846 8260
1330-20-7	Xylene	57 92	103	15	15		SW-846 8260

# Table 18 Sample Matrix Spike Evaluation

CAS No.	Analyte	Minimum	Maximum		Number of Laboratory Batches	Unit	Test Method
7440-66-6	Zinc	62	113	9	9	%REC	SW-846 6010

Table 19
Sample Matrix Spike Duplicate Evaluation

And Andreas	is a Name of	Africaeins Cabacans		
	Simple time	ills:mires		
1,1,1-Trichloroethane	15	15	23 94	
1,1,2,2-Tetrachloroethane	14	14	37 23	
1,1,2-Trichloroethane	15	15	24 21	
1,1-Dichloroethane	15	15	24 17	
1,1-Dichloroethene	2	2	4 21	
1,1-Dichloroethene	15	15	32 31	
1,2,4-Trichlorobenzene	16	16	34 34	
1,2,4-Trichlorobenzene	15	15	35 68	
1,2-Dichlorobenzene	15	15	42 69	
1,2-Dichloroethane	2	2	3 59	
1,2-Dichloroethane	15	15	22 50	
1,2-Dichloropropane	15	15	25 88	
1,4-Dichlorobenzene	2	2	6 90	
1,4-Dichlorobenzene	15	15	44 07	
2,4,5-Trichlorophenol	16	16	40 82	
2,4,6-Trichlorophenol	16	16	35 29	
2,4-Dichlorophenol	16	16	46 46	
2,4-Dimethylphenol	16	16	40 00	
2,4-Dinitrophenol	16	16	66 67	
2,4-Dinitrotoluene	16	16	41 27	
2,6-Dinitrotoluene	16	16	41 94	
2-Butanone	14	14	19 83	
2-Butanone	2	2	16 74	
2-Chloronaphthalene	16	16	30 93	
2-Chlorophenol	16	16	37 62	
2-Methylnaphthalene	16	16	24 76	
2-Methylphenol	16	16	36 73	
2-Nitroaniline	16	16	29 06	
3,3'-Dichlorobenzidine	16	16	35 56	
4,6-Dınıtro-2-methylphenol	16	16	50 85	
4-Chloroaniline	16	16	44 16	
4-Methyl-2-pentanone	14	14	24 71	
4-Methylphenol	16	16	37 62	
4-Nitrophenol	16	16	30 77	
Acenaphthene	16	16	32 65	
Acetone	14	14	44 55	
Alumınum	8	8	107 08	
Anthracene	16	16	33 66	

Table 19
Sample Matrix Spike Duplicate Evaluation

Ps-Analyse 200	Standbergor Samolo Pares	. Yungi 22.00 Dalip 1602 Salippes	Surctiff Care
Antimony	9	9	19 72
Aroclor-1016	10	10	53 33
Aroclor-1260	10	10	26 09
Arsenic	9	9	13 33
Barium	9	9	16 47
Benzene	15	15	23 31
Benzene	2	2	2 30
Benzo(a)anthracene	16	16	46 51
Benzo(a)pyrene	16	16	36 36
Benzo(b)fluoranthene	16	16	32 06
Benzo(k)fluoranthene	16	16	53 66
Benzoic Acid	16	16	192 16
Benzyl Alcohol	16	16	34 62
Beryllium	9	9	26 98
bis(2-Chloroethyl)ether	16	16	35 29
bis(2-Chloroisopropyl)ether	16	16	35 05
bis(2-Ethylhexyl)phthalate	16	16	52 43
Bromodichloromethane	15	15	27 61
Bromoform	15	15	35 39
Bromomethane	15	15	48 72
Butylbenzylphthalate	16	16	44 00
Cadmium	9	9	32 84
Carbon Disulfide	15	15	33 99
Carbon Tetrachloride	15	15	21 94
Carbon Tetrachloride	2	2	3 28
Chlorobenzene	2	2	3 88
Chlorobenzene	15	15	38 27
Chloroethane	15	15	64 91
Chloroform	2	2	2 02
Chloroform	15	15	24 28
Chloromethane	15	15	69 80
Chrysene	16	16	37 50
cis-1,3-Dichloropropene	15	15	25 97
Cobalt	9	9	14 36
Copper	9	9	57 81
Dı-n-butylphthalate	15	15	39 29
Dı-n-octylphthalate	16	16	54 55
Dibenz(a,h)anthracene	16	16	40 00
Dıbenzofuran	16	16	32 00

Table 19
Sample Matrix Spike Duplicate Evaluation

Antive	es de gamine de Sample Pais	ិប្រជាជ្រឹង្គការស្រ សម្រាស់ (ប្រសិ ស្រ្តាស់ពីទីទី	What Block
Dibromochloromethane	15	15	24 59
Diethylphthalate	16	16	37 84
Dimethylphthalate	16	16	39 25
Ethylbenzene	15	15	37 68
Fluoranthene	16	16	33 04
Fluorene	16	16	28 57
Hexachlorobenzene	16	16	26 67
Hexachlorobutadiene	15	15	23 32
Hexachlorobutadiene	16	16	38 30
Hexachlorocyclopentadiene	16	16	27 03
Hexachloroethane	16	16	35 05
Indeno(1,2,3-cd)pyrene	16	16	37 50
Iron	4	4	195 30
Isophorone	16	16	39 37
Lead	9	9	22 61
Lithium	9	9	5 08
Manganese	7	7	108 84
Mercury	8	8	58 06
Methylene chloride	15	15	38 02
Molybdenum	9	9	10 29
n-Nitrosodiphenylamine	16	16	34 59
n-Nitrosodipropylamine	16	16	30 30
Naphthalene	13	13	35 07
Naphthalene	16	16	33 01
Nickel	9	9	32 43
Nitrate	4	4	4 71
Nitrobenzene	16	16	35 29
Pentachlorophenol	16	16	36 89
Phenol	16	16	37 62
Pyrene	16	16	37 97
Selenium	9	9	14 69
Silver	8	8	19 88
Strontium	9	9	40 88
Styrene	15	15	40 57
Tetrachloroethene	15	15	23 50
Tetrachloroethene	2	2	3 35
Tın	9	9	11 63
Toluene	15	15	24 91
trans-1,3-Dichloropropene	15	15	25 57

Table 19
Sample Matrix Spike Duplicate Evaluation

Anitro	Chaire or Single this	្តិរួមប្រជាជន្លើក ប្រជាជន្លើក ប្រជាជនក្នុង ប្រជាជនិក្សា ប្រជាជនក្នុង ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជនិក្សា ប្រជាជ	
Trichloroethene	15	15	22 19
Trichloroethene	2	2	3 28
Uranium, Total	9	9	10 64
Vanadium	9	9	53 33
Vinyl chloride	15	15	60 48
Vinyl chloride	2	2	6 37
Xylene	15	15	39 97
Zinc	9	9	34 67

Table 20 Field Duplicate Sample Frequency

Test Method	Sample Code	Number of Samples	% Duplicate Samples
ALPHA SPEC	REAL	33	6 06%
ALPHA SPEC	DUP	2	
GAMMA SPECTROSCOPY	REAL	181	4 42%
GAMMA SPECTROSCOPY	DUP	8	
SW-846 6010	REAL	36	8 33%
SW-846 6010	DUP	3	
SW-846 6200	REAL	108	6 48%
SW-846 6200	DUP	7	
SW-846 8082	REAL	33	9 09%
SW-846 8082	DUP	3	
SW-846 8260	REAL	48	6 25%
SW-846 8260	DUP	3	
SW-846 8270	REAL	76	6 58%
SW-846 8270	DUP	5	

Table 21 RPD Evaluation

Analyte	Max of RPD %
1,2,4-Trichlorobenzene	197 07
2,4,5-Trichlorophenol	3 82
2,4,6-Trichlorophenol	3 82
2,4-Dichlorophenol	3 82
2,4-Dimethylphenol	3 82
2,4-Dinitrophenol	5 13
2,4-Dinitrotoluene	2 74
2,6-Dinitrotoluene	2 74
2-Chloronaphthalene	3 82
2-Chlorophenol	3 82
2-Methylnaphthalene	3 82
2-Methylphenol	3 82
2-Nitroaniline	5 13
3,3'-Dichlorobenzidine	6 45
4,6-Dinitro-2-methylphenol	5 13
4-Chloroaniline	6 45
4-Methyl-2-pentanone	0 00
4-Methylphenol	3 82
4-Nitrophenol	5 13
Acenaphthene	5 13
Aluminum	46 70
Americium-241	106 71
Americium-241	11 26
Anthracene	5 13
Aroclor-1221	130 10
Aroclor-1232	130 10
Aroclor-1242	130 10
Aroclor-1254	130 10
Aroclor-1260	130 10
Arsenic	33 58
Barium	131 43
Barium	122 50
Benzene	0 00
Benzo(a)anthracene	16 67
Benzo(a)pyrene	8 33
Benzo(b)fluoranthene	14 63
Benzo(k)fluoranthene	6 06
Benzoic Acid	5 13
Benzyl Alcohol	6 45
Beryllium	56 41
bis(2-Chloroethyl)ether	3 82
bis(2-Chloroisopropyl)ether	3 82
bis(2-Ethylhexyl)phthalate	3 82

Table 21 RPD Evaluation

Analyte	Max of RPD
Bromodichloromethane	0 00
Bromoform	0 00
Butylbenzylphthalate	3 82
Cadmium	82 35
Carbon Disulfide	0 00
Chlorobenzene	0 00
Chloroform	0 00
Chromium	40 96
Chrysene	44 44
cis-1,3-Dichloropropene	0 00
Cobalt	39 13
Copper	132 52
Dı-n-butylphthalate	3 82
D1-n-octylphthalate	3 82
Dibenz(a,h)anthracene	46 15
Dibenzofuran	3 82
Dibromochloromethane	0 00
Diethylphthalate	3 82
Dimethylphthalate	3 82
Fluoranthene	30 43
Fluorene	3 82
Copper	127 55
Hexachlorobenzene	3 82
Hexachlorobutadiene	3 82
Hexachlorocyclopentadiene	3 82
Hexachloroethane	3 82
Indeno(1,2,3-cd)pyrene	3 82
Iron	51 20
Isophorone	3 82
Lead	41 86
Lithium	53 33
Manganese	26 67
Mercury	160 60
n-Nitrosodiphenylamine	3 82
n-Nitrosodipropylamine	3 82
Naphthalene	197 07
Nickel	33 33
Nitrobenzene	3 82
Pentachlorophenol	5 13
Phenol	3 82
Plutonium-239/240	140 78
Pyrene	48 10
Silver	25 00
Strontium	58 12

Table 21 RPD Evaluation

Analyte	Max of RPD %
Styrene	0 00
Tin	5 56
Toluene	0 00
Uranıum-234	6 68
Uranium-234	5 53
Uranium-238	19 83
Uranium-238	16 06
Vanadium	120 74
Vanadium	109 00
Zinc	84 11
Zinc	40 98

ER RSOP Notification and Closeout Report IHSS Group 700-4

Validation and Verification Summary Table 22

						•		:	
Validation Qualifier Code	Total of CAS Number	Alpha Spec	Gamma Spectroscopy	SW-846 6010	SW-846 6200	SW-846 8082	SW-846 8260	SW-846 8260B	SW9056 OR E300_0 Prep E300_0
No V&V	140	5	123	0	0	0	0	2	0
1	421	0	410	0	0	0	0	6	2
J	185	5	0	129	40	1	1	6	0
11	155	0	0	58	85	0	9	0	. 6
R	1	0	0	1	0	0	0	0	0
Ω	1	0	0	0	0	0	1	0	0
Λ	2983	135	122	441	563	111	474	1125	0
VI	5565	20	410	151	1191	112	1028	2641	0
JB	16	0	0	0	0	0	15	1	0
JB1	28	0	0	0	0	0	28	0	0
u	249	0	0	72	45	0	13	163	1
UJI	93	0	0	21	20	7	32	2	11
Total	9843	165	1065	828	1944	231	1598	3952	20
Valdiated	3435	140	122	865	648	112	504	1298	1
% Validated	34 90%	84 85%	11 46%	72 22%	33 33%	48 48%	31 54%	32 84%	5 00%
Venfied	6262	20	820	230	1296	119	1094	2652	19
% Venfied	63 62%	12 12%	27 00%	27 78%	%L9 99	51 52%	68 46%	67 11%	95 00%
Rejected	1	0	0	1	0	0	0	0	0
% Rejected	0 01%	0 00%	0 00%	0 12%	0000	0 00%	0 00%	0 00%	0 00%
KEY	1, V1 – Verified	pa						i	

1, V1 – Verified
J, J1 – Estimated
B – In blank
UJ, UJ1 – Estimated detection limit
V – Validated
R – Rejected

T-130

ER RSOP Notification and Closeout Report IHSS Group 700-4

Table 23 Sensitivity Summary

Yes	<b>&amp;</b>	Ū	pCı/g	0 066 pCv/g	82	TROSCOPY Uranium-235	SPECTROSCOPY	CD48-000
							GAMMA	
Yes	8	n	pC1/g	0 023 pC1/g	86	ROSCOPY Uranium-235		CH48-005
							GAIMMA	
Sensitive 2	Refuse White A.E.	Result Onsumer Codes	Result Unit	result	Perketön Sphrite	Analytek	Test/Meffod	Location Code
	Wildlife	Lab		100				

# **APPENDICES**

# Appendix A - Correspondence

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

December 17, 2002/ 3 00 pm

Site Contact(s)

Phone

Hanna Marschall, Reginald Tyler (303) 966-4085 (303) 966-5927

**Regulatory Contact** 

Phone

Carl Spreng (303) 692-3358

Agency

**CDPHE** 

Purpose of Contact: Permission to re-grade Building 335

#### Discussion

While grading at the site of the former building 335, soil staining was noted at the southeast corner of the slab. An additional sample was collected for volatile organic compounds (VOC) and metals in the soil to determine if soil contamination above action levels was present. A review of the sample data indicates that all constituents are below Tier I and Tier 2 action levels with the exception of an arsenic concentration of 19 ppm, slightly exceeding the arsenic background value. However, this value is within the range of arsenic concentrations identified at other locations even though it is slightly above the official background value.

After review of this data and based on similar arsenic concentrations seen at several other locations that are accepted to be within the arsenic background range, both Reg Tyler, DOE and Carl Spreng, CDPHE agreed that the B335 area can be regraded

#### Contact Record Prepared By Hanna Z Marschall

#### Required Distribution

S Bell, RFFO D Mayo, K-H RISS L Brooks, K-H ESS J Mead, K-H ESS L Butler, K-H RISS S Nesta, K-H RISS C Deck, K-H Legal K North, K-H ESS R DiSalvo, RFFO T Rehder, USEPA D Shelton, K-H S Gunderson, CDPHE J Legare, RFFO E Pottorff, CDPHE D Kruchek, CDP R Tyler, RFFO

# Additional Distribution (choose names as applicable)

M Broussard, K-H RISS

S Serreze, K-H RISS

G Kleeman, USEPA

G Kelly, K-H RISS L Norland, K-H RISS

A Primrose, K-H'RISS

D Foss, K-H RISS

C Freiboth, K-H RISS

H Marschall, K-H RISS

N Castaneda, RFFO

S Surovchak, RFFO

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

November 26, 2003/1 00 pm

Site Contact(s)

Phone

Hanna Marschall, (303) 966-4916

**Regulatory Contact** 

Phone

David Kruchek (303) 692-3328

Agency

**CDPHE** 

Purpose of Contact: Permission to backfill excavation at Building 774

#### Discussion

Four (4) confirmation samples were collected after the contaminated soil was removed at Building 774. All analytical results from sampling during the project have now been reviewed and the confirmation samples verify that the remaining soils are below the action level of 1 nCt/g. The highest result was 93.2 pCt/g. Plutonium-239/240. The results meet the RFCA Attachment 5, Section 5.3, paragraph A, Subsurface Soil Risk Screen, and therefore, the project has approval to backfill the excavation.

FIDLER surveys were conducted at numerous locations within the excavation to assist with remediation. In addition to the confirmation samples, one (1) characterization soil sample was collected under an area on the west wall of B774 where there was a survey result of 15000 alpha direct. Gamma spec results were 31.5 pCi/g Americian-241. Another (2) characterization sample(s) were collected in a random location of the excavated area where there was not elevated FIDLER readings (survey results N/A) after remediation. There was a duplicate sample taken at this location and the Gamma Spec results were 6.57 pCi/g and 4.33 pCi/g Americium-241 respectively. This confirms that the FIDLER is useful for directing remedial actions where Americium contamination is present.

The area east of the excavated area in the location of the former cargo container was checked with a FIDLER for potential contamination. Survey results in this area were less than 20 dpm/100cm swipe and less than 4000 cpm direct alpha.

#### Contact Record Prepared By Hanna Z Marschall

#### Required Distribution

S Bell, RFFO L Brooks, K-H ESS L Butler, K-H RISS

C Deck, K-H Legal R DiSalvo, RFFO

S Gunderson, CDPHE J Legare, RFFO

D Kruchek, CDPHE

D Mayo, K-H RISS

J Mead, K-H ESS S Nesta, K-H RISS

K North, K-H ESS T Rehder, USEPA

D Shelton, K-H C Spreng, CDPHE R Tyler, RFFO Additional Distribution (choose names as applicable)

M Broussard, K-H RISS

C Freiboth, K-H RISS

G Kleeman, USEPA

S Serreze, K-H RISS L Norland, K-H RISS

A Primrose, K-H RISS

D Onyskiw, CDPHE

D Foss, K-H RISS G Kelly, K-H RISS

Contact Record 6/20/02 Rev 6/20/02

H Marschall, K-H RISS N Castaneda, RFFO S Surovchak, RFFO

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

November 15, 2002/1700

Site Contact(s)

Marla Broussard

Phone

303-966-6007

**Regulatory Contacts** 

Dave Kruchek

**Phones** 

303-692-3328

Agency.

Colorado Department of Public Health and Environment

**Purpose of Contact** 

IASAP Addendum #IA-03-01 Comment Resolution

#### Discussion

The following changes will be made by RFETS to IHSS Group 700-4, Section 4 0 of IASAP Addendum #IA-03-01

- (1) The sump in Building 771, Room 142 will be located on Figure 9 All other sumps/sinks will be relocated in the field
- (2) VOCs will be added to the analyte list for deep sumps only
- (3) Samples will be collected from the 0 0-0 5, 0 5 2 5 and 2 5 4 5 interval at the following locations CF48-012, CF48-002, CF48-001, and CF48-011

Additionally, as discussed, the following text will be added to Section 1.2 "Statistical confidence in UBC and under pad characterization sample sets at >90% will be maintained with the currently suggested gridspacing of 72 feet Use of the appropriate statistical models, such as EPA QA/G-4, lognormal, or nonparametric methods (e.g., the MARSSIM, EPA et al., 1997), will corroborate, with better than 90% confidence, that enough samples were acquired to draw final project conclusions "

Contact Record Prepared By	Susan Serreze	
Required Distribution		Additional Distribution (choose names as applicable)
S Bell, RFFO	D Mayo, K-H RISS	M Broussard, K-H RISS
L Brooks, K-H ESS	J Mead, K-H ESS	G Kleeman, USEPA
L Butler, K-H RISS	S Nesta, K-H RISS	D Kruchek, CDPHE
C Deck, K-H Legal	K North, K-H ESS	L Norland, K-H RISS
R DiSalvo, RFFO	T Rehder, USEPA	A Primrose, K-H RISS
S Gunderson, CDPHE	D Shelton, K-H	S Serreze, K-H RISS
J Legare, RFFO	C Spreng, CDPHE	D Strand, K-H RISS

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

November 4, 2003/11 00 am

Site Contact(s)
Phone

Hanna Marschall, Annette Primrose (303) 966-4916, (303) 966-4385

Regulatory Contact

David Kruchek, Denise Onyskiw

Phone

(303) 692-3328 (303) 966-6687

Agency

**CDPHE** 

Purpose of Contact Location of additional soil samples at Building 774

#### Discussion

As discussed with and agreed to by David Kruchek and Denise Onyskiw, confirmation samples will be collected after the contaminated soil is removed as follows

- (1) from the soils directly underlying former tank T-66,
- (2) from the soils directly underlying or the former tank T-67,
- (3) & (4) will be located where elevated FIDLER readings are present after remediation,

The confirmation samples will be analyzed by Alpha Spectroscopy for rads, metals (Be included), SVOCs and VOCs If the confirmation sampling results exceed the action level, there will be additional remediation and confirmation samples required

Additional characterization samples will be collected along the west wall of B774 where there are higher FIDLER readings and another will be located in a part of the excavated area where there are not elevated FIDLER readings after remediation

The area east of the excavated area in the location of the former cargo container will be checked with a FIDLER for potential contamination

## Contact Record Prepared By Hanna Z Marschall

#### Required Distribution Additional Distribution (choose names as applicable) S Bell, RFFO D Mayo, K-H RISS M Broussard, K-H RISS L Brooks, K-H ESS J Mead, K-H ESS C Freiboth, K-H RISS S Nesta, K-H RISS L Butler, K-H RISS G Kleeman, USEPA S Serreze, K-H RISS C Deck, K-H Legal K North, K-H ESS R DiSalvo, RFFO T Rehder, USEPA L Norland, K-H RISS A Primrose, K-H RISS S Gunderson, CDPHE D Shelton, K-H D Onyskiw, CDPHE J Legare, RFFO C Spreng, CDPHE D Kruchek, CDPHE R Tyler, RFFO D Foss, K-H RISS G Kelly, K-H RISS H Marschall, K-H RISS

Contact Record 6/20/02 Rev 6/20/02

N Castaneda, RFFO S Surovchak, RFFO

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

September 11, 2003/11 05am

Site Contact(s)

Mark A Ruthven

Phone

303-966-2955

Regulatory Contact

act Dave Kruchek

Phone

303-692-3328

Agency

**CDPHE** 

Purpose of Contact Samples to be taken under T-14 and T-16 in IHSS Group 700-4

#### Discussion

Confirmed during a phone conversation, three additional grab samples will be taken at the former location of Tanks T-14 and T-16 outside Building 774 Radionuclides, metals, VOCs, and SVOCs will be analyzed If evidence of a spill is present, samples may be relocated to sample the suspect areas

#### Contact Record Prepared By Mark A Ruthven

#### Required Distribution

- S Bell, RFFO
- J Berardını, K-H
- L Brooks, K-H ESS
- M Broussard, K-H RISS
- L Butler, K-H RISS G Carnival, K-H RISS
- N Castaneda, RFFO
- C Deck, K-H Legal
- R D<sub>1</sub>Salvo, RFFO
- S Gunderson, CDPHE

- M Keating, K-H RISS
- G Kleeman, USEPA
- D Kruchek, CDPHE
- D Mayo, K-H RISS
- R McCalister, DOE
- J Mead, K-H ESS
- S Nesta, K-H RISS L Norland, K-H RISS
- K North, K-H ESS
- E Pottorff, CDPHE

- A Primrose, K-H RISS
- T Rehder, USEPA
- S Serreze, RISS
- D Shelton, K-H
- C Spreng, CDPHE
- S Surovchak, RFFO
- K Wiemelt, K-H RISS
- C Zahm, K-H

Additional Distribution (choose names as applicable)

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time

October 28, 2003/7 15 am

Site Contact(s)

**Phone** 

Annette Primrose 303 966-4385

**Regulatory Contact** 

Phone

David Kruchek 303 692-3328

Agency

**CDPHE** 

Purpose of Contact Accelerated notification of remedial action at IHSS group 700-4

#### Discussion

Process waste tanks 66, 67 and 68 on the east side of Building 774 were recently removed as part of building decommissioning activities The area was roughly regraded after tank removal to leave the area in a safer configuration and approximately two feet of previously excavated soil was replaced over the subtank soils

Samples were collected from the soils directly underlying the tanks with the following results

- Tank 68 Americium activity was not detected
- Tank 67 Americium activity was 782 pCi/g in subtank soils Americium activity in the overlying fill material was 8 47 pCi/g
- Tank 66 Americium activity was 6 1 nCi/g in the subtank soils Americium activity in the overlying fill material was 6 15 pCi/g

At final grade, the area will be 8 to 12 feet below grade However, as stated in RFCA Attachment 5, once an excavation is started, the principal of ALARA will be applied by removing all soil contamination to less than 1 nC1/g Therefore, a remedial action is planned for the Tank 66 and part of the Tank 67 area, including the higher activity areas noted during the radiological survey of the area. The excavation is currently open and an immediate approach is required for this area

For this action, sufficient contaminated soil will be removed and dispositioned as waste to ensure that the remaining soils are below the action level of 1 nCi/g Confirmation samples will be collected to verify that the action level of 1 nCi/g was met

The extent of the remedial action will be documented in a closeout report for IHSS Group 700-4

#### Contact Record Prepared By Annette Primrose

### Required Distribution

S Bell, RFFO

J Berardini, K-H

L Brooks, K-H ESS

M Broussard, K-H RISS

L Butler, K-H RISS

G Carnival, K-H RISS

N Castaneda, RFFO

C Deck, K-H Legal

R DiSalvo, RFFO

S Gunderson, CDPHE

M Keating, K-H RISS

G Kleeman, USEPA

D Kruchek, CDPHE

D Mayo, K-H RISS

R McCalister, DOE

J Mead, K-H ESS

S Nesta, K-H RISS

L Norland, K-H RISS

K North, K-H ESS

E Pottorff, CDPHE

A Primrose, K-H RISS

T Rehder, USEPA

S Serreze RISS

D Shelton, K-H

C Spreng, CDPHE S Surovchak, RFFO

K Wiemelt, K-H RISS

C Zahm, K-H

Contact Record 8/27/03 Rev 8/27/03

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE **ENVIRONMENTAL RESTORATION** REGULATORY CONTACT RECORD

Date/Time·

October 16, 2003

Site Contact(s).

Susan Serreze

Phone:

303-966-2677

Regulatory Contact: Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough

Phone:

303-692-3300

Agency

**CDPHE** 

Purpose of Contact: Consultative Process Meeting – Meeting Notes

Discussion

## October, 16 2003 Comment Resolution Meetings For

**IHSS 149.2 Boundary Change** IHSS 169 and 132 HRR Issues **IHSS Group 000-2 ER RSOP Notification IHSS Group 400-3 Field Completion** IHSS Group 700-7 IASAP Addendum and ER RSOP Notification IHSSs 150.6 and 150.8 NFAA IHSS Group 700-5 IASAP Addendum and ER RSOP Notification IHSS Group 700-6 IASAP Addendum and ER RSOP Notification IHSS Group 700-4 Update

A meeting was held on October 16, 2003 to discuss several topics including IHSS Group 700-7 IASAP Addendum and Notification, IHSS Group 800-1 Notification, IHSS Group NE/NW Data Summary Report, IHSS Group 900-11, IHSS SW-1602 Notification, ER RSOP Modification and IHSS Group 000-2

#### I Attendees

CDPHE Dave Kruchek, Carl Spreng DOE Norma Castaneda K-H Marcella Broussard, K-H Team Mark Ruthven, Susan Serreze

## II Report Status

Upcoming reports include the IHSS Group 100-1 IASAP Addendum, IHSS Group 400-2 IASAP Addendum and ER RSOP Notification, IHSS Group 600-3 IASAP Addendum and ER RSOP Notification, and IHSS Group 900-12 BZSAP Addendum

III Issues

No sitewide issues were discussed

IV Specific Comments

#### **IHSS 149.2 Boundary Change**

The following resolutions were agreed to

- 1 IHSS 149 2 will be addressed as part of IHSS Group 700-7
- The IHSS 149 2 boundary will be shifted south to cover OPWL Lines P-36, 37, and 38

#### IHSS 169 HRR Administration

The following resolutions were agreed to

1 IHSS 169 will be re-proposed as an NFAA

#### **IHSS 132 HRR Administration**

The following resolutions were agreed to

- 1 IHSS 132 will be addressed as part of 700-3 Sampling locations will be documented through a contact record when fieldwork starts
- 2 If the tanks are not removed, samples will be collected from around the tanks

#### **IHSS Group 000-2 Notification**

CDPHE comments on the IHSS Group 000-2 Notification were discussed and the following resolutions were agreed to

- 1 Tank 39 and the associated line shown on the maps will be changed to indicate that this line is not an OPWL
- 2 The TBD designation at Buildings 707 and 883 will be removed from the maps
- 3 OPWLs that are found not to exist will be hatched on the maps

4 Specific OPWL removals will be discussed with the LRA and documented through contact records

#### **IHSS Group 400-3 Field Completion**

Characterization data from IHSS Group 400-3 was presented. Lead concentrations are greater than WRW ALs at one location in the northern part of Building 444 and manganese concentrations are greater than WRW ALs at one location west of Building 444. Lead, arsenic, and beryllium exceed ecological receptor ALs at several locations CDPHE requested that RFETS staff either further evaluate or excavate the WRW AL exceedances

## IHSS Group 700-7 IASAP Addendum and ER RSOP Notification

1 The IHSS Group 700-7 IASAP Addendum and ER RSOP Notification were delivered to CDPHE for verification and approval

#### IHSSs 150.6 and 150.8 NFAAs

The revised NFAA proposal for IHSSs 150 6 and 150 8 was delivered to CDPHE for approval

## IHSS Group 700-5 IASAP Addendum and ER RSOP Notification

The IHSS Group 700-5 IASAP Addendum and ER RSOP Notification were delivered to the regulatory agencies for verification and approval

The following resolutions were agreed to

1 Samples from the eight locations around the building will be sent to an offsite laboratory so that Be will be measured

## IHSS Group 700-6 IASAP Addendum and ER RSOP Notification

The draft IHSS Group 700-6 IASAP Addendum and ER RSOP Notification were delivered to the regulatory agencies for review

#### IHSS Group 700-4 Update

The CERCLA tanks were removed and confirmation samples were collected

## IV Meetings

The next meeting is scheduled for Wednesday, October 29, 2003, from 11 00 AM to 1 00 PM

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE **ENVIRONMENTAL RESTORATION** REGULATORY CONTACT RECORD

Date/Time.

June 12, 2003

Site Contact(s):

Susan Serreze

Phone:

303-966-2677

Regulatory Contact: Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough, Carl Spreng

Phone:

303-692-3300

Agency:

**CDPHE** 

Purpose of Contact Consultative Process Meeting—Meeting Notes

Discussion

## June 11 and 12, 2003 Comment Resolution Meetings For

**IHSS Group 700-4 Field Completion** IHSS Group 600-1 Closeout Report IHSS Group 300-2 Draft IASAP Addendum **IHSS Group 000-1 Closeout Report** 

Meetings were held on June 11 and 12, 2003 to discuss several topics including the IHSS Group 600-1 Closeout, IHSS Group 300-2 Draft IASAP Addendum, and IHSS Group 700-4 Field Completion

#### I Attendees

CDPHE Dave Kruchek, Elizabeth Pottorff, Harlen Ainscough, Carl Spreng DOE Russ McCallister K-H Marcella Broussard K-H Team Gerry Kelly, Susan Serreze

#### II Report Status

Upcoming documents were briefly discussed and included upcoming Addenda for IHSS Group 400-6, 600-4, OPWL, Closeouts and Data Summaries for 700-4, 900-3, and NE/NW, and field completion concurrence for 300-3, and 300-4

#### III <u>Issues</u>

There were no program-wide issues

#### IV Specific Comments

#### **IHSS Group 700-4 Field Completion**

- 1 Based on the UBC 774 alpha spectroscopy data and the lack of an effective pathway for the movement of plutonium through the subsurface there is not an exceedance that would result in an ER action
- 2 The preliminary data maps were updated to show OPWL, tanks, other features, and all sampling locations and presented to CDPHE
- 3 Alpha spectroscopy data for UBC 774 was presented The americium/plutonium ratio is different than the 1 8 08 ratio used to estimate plutonium activity from HPGe results
- 4 At IHSS 163 1 benzo(a)pyrene was elevated, but not greater than WRW ALs These elevated concentrations will not result in an action
- At IHSS 150 1 arsenic concentrations appear to decrease away from the building Elevated concentrations will not result in an action

#### IHSS Group 600-1 Closeout Report

The following resolutions were agreed to

1 Add a statement regarding how validation of other records affects IHSS Group 600-1 data quality

### IHSS Group 300-2 IASAP Addendum

The following resolutions were agreed to

- Additional biased samples in response to CDPHE comments were added to the sampling plan
- 2 H Ainscough will meet with D Reeder to look at specific B331 features

#### **HSS Group 000-1 Closeout Report**

1 The reason why hot spots were removed at the SEP will be added to the text

#### IV Meetings

The next meeting is scheduled for Thursday, June 26, 2003, from 10 30 AM to 12 00 PM

## Distribution:

- H Ainscough, CDPHE
- S Gunderson, CDPHE
- D Kruchek, CDPHE
- E Pottorff, CDPHE
- C Spreng, CDPHE
- G Kleeman, USEPA
- N Castenada, RFFO
- R McCallister, RFFO

- L Brooks, K-H ESS
- M Broussard, K-H RISS
- L Butler, K-H RISS
- R Davis, K-H RISS
- C Deck, K-H Legal
- D Mayo, K-H RISS
- J Mead, K-H ESS
- S Nesta, K-H RISS
- L Norland, K-H RISS
- K North, K-H ESS
- A Primrose, K-H RISS
- D Shelton, K-H
- K Wiemelt, K-H RISS

- W Chromec, K-H Team
- K Griggs, K-H Team
- G Kelly, K-H Team
- B Koehler, K-H Team
- S Luker, K-H Team
- G Pudlick, K-H Team
- D Reeder, K-H Team
- M Ruthven, K-H Team
- S Serreze, K-H Team
- E Woodland, K-H Team
- Administrative Record
- ER Meeting Minutes

#### Serreze, Susan

From.

**David Kruchek** 

Sent

Friday, June 06, 2003 10 00 AM

To

McCallister, Russell, #ER Contact Records, Gilbreath, Chris, Woodland, Dan E, Radtke, David J, Strand, David, Foss, Dyan, Griggs, Karen, Wiemelt, Karen, Davis, Robert W,

Roberts, Sarah, Luker, Steve, Paris, Steve, Serreze, Susan, Spence, Tracey,

harlen ainscough@state co us

Cc Subject STEVE Gunderson, Steve Tarlton Re Regulatory Contact Record 700-4

A NFA or NFAA has not been agreed to by us

Based on the information provided at the meeting we agreed that it did not look like further actions were warranted for B771, but not necessarily for B774, where VOCs and Am/Pu had been identified. We were also told that an additional sample was being collected next to the big Am detection. As such, we wanted to be able to review this data, as well as the additional results of the sample being collected before making any decision regarding NFA or NFAA.

As yet, we have not been provided results for any additional sampling that has been performed

>>> "Serreze, Susan" <Susan Serreze@rfets gov> 06/05/03 09 45AM >>> Attached is a regulatory contact record for IHSS Group 700-4 <<RCR consultative process700-4 doc>>

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE **ENVIRONMENTAL RESTORATION** REGULATORY CONTACT RECORD

Date/Time:

May 29, 2003

Site Contact(s).

Norma Castaneda, Russ McCallister, Karen Wiemelt,

Susan Serreze.

Phone:

303-966-4226, 303-966-9692, 303-966-9883, 303-966-2677

Regulatory Contact: Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough

Phone:

303-692-3429, 303-692-3328, 303-692-3337

Agency:

**CDPHE** 

Purpose of Contact. Consultative Process Meeting IHSS Group 700-4

#### Discussion

A meeting was held on May 29, 2003, to discuss the IHSS Group 700-4 characterization data Based on the preliminary data presented, CDPHE agreed that an accelerated action at IHSS Group 700-4 is not warranted DOE will provide IHSS Group 700-4 preliminary data maps with building structures to CDPHE in PDF format

#### Distribution

- H Ainscough, CDPHE
- S Gunderson, CDPHE
- D Kruchek, CDPHE
- E Pottorff, CDPHE
- C Spreng, CDPHE
- T Rehder, USEPA
- G Kleeman, USEPA
- N Castenada, RFFO
- R DiSalvo, RFFO
- R McCallister, RFFO
- S Surovchak, RFFO
- R Tyler, RFFO

- L Brooks, K-H ESS
- M Broussard, K-H RISS
- L Butler, K-H RISS
- R Davis, K-H RISS
- C Deck, K-H Legal
- D Mayo, K-H RISS
- J Mead, K-H ESS
- S Nesta, K-H RISS
- L Norland, K-H RISS
- K North, K-H ESS
- A Primrose, K-H RISS
- D Shelton, K-H ESS
- K Wielmelt, K-H RISS

- K Griggs, K-H Team
- G Kelly, K-H Team
- S Luker, K-H Team
- S Paris, K-H Team
- D Radtke, K-H Team
- S Serreze, K-H Team
- D Strand, K-H Team
- E Woodland, K-H Team
- Administrative Record
- ER Meeting Minutes

# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE **ENVIRONMENTAL RESTORATION** REGULATORY CONTACT RECORD

Date/Time:

May 29, 2003

Site Contact(s):

Susan Serreze

Phone:

303-966-2677

Regulatory Contact: Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough

Phone:

303-692-3300

Agency:

**CDPHE** 

Purpose of Contact: Consultative Process Meeting—Meeting Notes

#### Discussion

May 29, 2003 Comment Resolution Meeting

For

IHSS Group 500-7 Data Summary Report IHSS Group 800-2 Data Summary Report **IHSS Group 600-2 Closeout Report** IHSS Group 300-2 Draft IASAP Addendum IHSS Group 400-3 Draft IASAP Addendum IHSS Group 500-2 Draft IASAP Addendum

IHSS Group 700-4 Field Completion **IHSS Group 900-3 Field Completion** 

A meeting was held on May 29, 2003 to discuss several topics including the IHSS Group 500-7 Data Summary Report, IHSS Group 800-2 Data Summary Report, IHSS Group 300-2 Draft IASAP Addendum, IHSS Group 400-3 Draft IASAP Addendum, IHSS Group 500-2 Draft IASAP Addendum, Subsurface Soil Risk Screen, Data Quality Assessment, IHSS Group 700-4 Field Completion, and IHSS Group 900-3 Field Completion

#### I Attendees

CDPHE Dave Kruchek, Elizabeth Pottorff, Harlen Ainscough DOE Norma Castaneda, Russ McCallister K-H Karen Wiemelt K-H Team Gerry Kelly, David Radtke, Susan Serreze

#### II Report Status

Meeting minutes from the 5/15/03 meeting were handed out Upcoming documents were briefly discussed and included upcoming Addenda for IHSS Group 400-6, 600-4, OPWL, Closeouts and Data Summaries for 700-4 and 900-3, and field completion concurrence for 400-8, 300-3, and 300-4

#### III Issues

There were no program-wide issues

IV Specific Comments

## IHSS Group 500-7 Data Summary Report

The following resolutions were agreed to

The laboratory control sample and matrix spike frequencies will be added to the DQA. Additionally, the text will be modified to provide more data on analyte tolerances, where available. Once these changes are finished, the document will be sent for final verification and approval

#### IHSS Group 800-2 Data Summary Report

The following resolutions were agreed to

- The laboratory control sample and matrix spike frequencies will be added to the DQA. Additionally, the text will be modified to provide more data on analyte tolerances, where available
- 2 Text will be added to the validation summary stating that when V&V is complete, the data will be updated in SWD and the resulting data will be evaluated as part of the CRA
- 3 E Pottorff concurred with using the hot spot methodology for the barium exceedance
- 4 Once these changes are finished, the document will be sent for final verification and approval

#### IHSS Group 600-2 Closeout Report

The revised DQA for IHSS Group 600-2 Closeout Report was provided to CDPHE The laboratory control sample and matrix spike frequencies will be added to the DQA. Additionally, the text will be modified to provide more data on analyte tolerances, where available

### IHSS Group 500-2 IASAP Addendum

1 Changes to the draft IHSS Group 500-2 IASAP Addendum are acceptable DOE will ask CDPHE for an approval letter

### IHSS Group 400-3 IASAP Addendum

- 1 Text will be added that states that most samples outside of the buildings will be collected as part of IASAP Addendum for 400-6
- 2 VOCs will be added to the sampling specifications at OPWL sampling locations
- With these changes, the draft IHSS Group 400-3 IASAP Addendum is acceptable DOE will ask CDPHE for an approval letter

#### IHSS Group 300-2 IASAP Addendum

- 1 A building walkdown will be conducted to identify cracks in the concrete, floor drains, and other features of potential concern
- 2 Old building drawings will be reviewed to identify features of potential concern including drains

#### IHSS Group 900-3 Field Completion

- 1 There are several locations where concentrations are greater the ecological receptor AL
- 2 Based on the preliminary data, an accelerated action is not warranted
- 3 The data summary report will include that the "presumed native soil, contaminated in the 1960's was sampled"
- 4 RCRA activities will not be described, but the appropriate documents will be referred to

#### IHSS Group 700-4 Field Completion

- 1 Based on the preliminary data, an accelerated action is not warranted
- 2 The preliminary data maps will be updated to show OPWL, tanks, other features, and all sampling locations
- 3 Additional information on the difference between field HPGe and fixed laboratory measurements will be provided to CDPHE
- 4 Information from the original limited UBC sampling will be included in the data summary report

# IV Meetings

The next meeting is scheduled for Thursday, June 12, 2003, from 10 30 AM to 12 00 PM

## Distribution:

H Amscough, CDPHE

S Gunderson, CDPHE

D Kruchek, CDPHE

E Pottorff, CDPHE

C Spreng, CDPHE

G Kleeman, USEPA

N Castaneda, RFFO

R McCallister, RFFO

L Brooks, K-H ESS

M Broussard, K-H RISS

L Butler, K-H RISS

R Davis, K-H RISS

C Deck, K-H Legal

D Mayo, K-H RISS

J Mead, K-H ESS

S Nesta, K-H RISS

L Norland, K-H RISS

K North, K-H ESS

A Primrose, K-H RISS

D Shelton, K-H

K Wiemelt, K-H RISS

W Chromec, K-H Team

K Griggs, K-H Team

G Kelly, K-H Team

B Koehler, K-H Team

S Luker, K-H Team

G Pudlick, K-H Team

D Reeder, K-H Team

M Ruthven, K-H Team

S Serreze, K-H Team

E Woodland, K-H Team

Administrative Record

ER Meeting Minutes

Date/Time.

May 15, 2003

Site Contact(s):

Susan Serreze

Phone:

303-966-2677

Regulatory Contact: Carl Spreng, Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough

Phone:

303-692-3300

Agency:

CDPHE

Purpose of Contact: Consultative Process Meeting-Meeting Notes

## Discussion

May 15, 2003 Comment Resolution Meeting

for

IHSS Group 000-1 Closeout Report IHSS Group 600-1 Closeout Report IHSS Group 400-3 Draft IASAP Addendum IHSS Group 500-2 Draft IASAP Addendum Subsurface Soil Risk Screen

A meeting was held on May 15, 2003 to discuss several draft reports including the IHSS Group 000-1 Closeout Report, IHSS Group 600-1 Closeout Report, IHSS Group 400-3 Draft IASAP Addendum, IHSS Group 500-2 Draft IASAP Addendum, and the

subsurface soil risk screen

#### I Attendees

CDPHE Dave Kruchek, Elizabeth Pottorff, Carl Spreng, Harlen Ainscough DOE Norma Castaneda K-H Team Gerry Kelly, Mark Ruthven, Susan Serreze

### II Report Status

CDPHE was asked when comments on the Characterization Data Summary Report for IHSSs 165 and 176 would be ready Carl Spreng stated that he would send comments soon

# III <u>Issues</u>

In accordance with the proposed RFCA Modification, there are Closeout Reports and Data Summary Reports At the suggestion of CDPHE, reports that contain data but are not intended to support an accelerated action decision will be called "Characterization Data Summary Report"

CDPHE changes to the Subsurface Soil Risk Screen were discussed and the Subsurface Soil Risk Screen for IHSS Group 600-2 was modified

## IV Specific Comments

# **IHSS Group 000-1 Closeout Report**

The following resolutions were agreed to

- The Executive Summary will be changed to clarify what activities were conducted in accordance with ER RSOP Notification #02-08
- 2 A comparison to proposed ALs will be added to the Executive Summary
- 3 "Duct" will be changed to "dust" in the second to last sentence of the 4<sup>th</sup> paragraph in the Executive Summary and the reference to air monitoring will be removed
- 4 Section 1 0 will clarify that the ponds themselves were not within the scope of this action
- 5 Results will be compared with the proposed ALs in Section 2.0 In addition, the text will state that exceedances of the Ecological Receptor will be investigated under the IA Ecological Risk Assessment process
- Information on the depth of pipelines removed and the extent to which remaining lines were grouted will be provided, where available in Section 3.0 Analytical results of incidental water analyses will not be included. Because water removed was combined in poly-tanks, results cannot be traced to specific sources. In addition, results were not used to make remediation/NFAA decisions.
- 7 Figure 4 and Table 4 will be reviewed and corrected, as appropriate to include all sampling locations
- The title of Figure 5 will be corrected to indicate that the data are characterization results greater than background means plus two standard deviations or detection limits
- A statement will be added to Section 4.0 stating that the hot spots were designated based on current RFCA Tier I and Tier II ALs—Confirmation sampling results will not be compared to proposed WRW or ecological ALs in this section because the remediation was confirmed by comparison to Tier I and Tier II ALs—This comparison is generally made in several other locations in this document in accordance with

- agreements A statement will be added indicating that further AL comparisons are in the "Residual Contamination" section Additionally, a statement indicating what analytes are greater than RFCA Tier II ALs, will be added
- 10 Section 5 0 will be revised to include reference to the RCRA Units and associated samples
- 11 Confirmation sampling was conducted where contaminated soils were removed and all confirmation sampling results were reported. Other areas sampled (e.g., underneath items removed) yielded characterization results, and these are reported in Table 4 and Figure 5. Waste characterization results are presented in Table 14. However, because similar wastes were combined in containers, results can not be traced to specific sources and were not used to make remediation/NFAA decisions. No text changes are required.
- 12 Information on the depth of remaining pipelines and their construction material will be provided in Section 6 2, where available Sections 3 and 9 discuss the disposal of water encountered during removal activities Because water removed was combined in poly-tanks, analytical results can not be traced to specific sources and were not used to make remediation/NFAA decisions Therefore, results were not reported
- 13 The analyte group responsible for SOR exceedances will be identified and discussed in Section 8.1 Analytical results will also be compared to the new ALs
- 14 The color of the insets will changed to blue and we will try to take out the crosses in Figures 12 through 15
- 15 Section 11 0 and the title clearly state that these samples are no longer representative No text changes are necessary
- 16 Section 13 1 will be changed, as appropriate, to reflect actual work performed under ER RSOP Notification #02-08 and related characterization results. The DQA section is being modified using the newly agreed-to DQA model. DERs will be included where the SWD data permits.

# **IHSS Group 600-1 Closeout Report**

- 1 Comparison of results to proposed WRW and ecological ALs was added in the executive summary
- 2 Request for NFAA concurrence was added to Section 1
- 3 Information on the disposition of concrete from B663 will be added, if available, to Section 2 3 2 Only asphalt associated with concrete removal was removed. Asphalt remains at the southeastern corner of the site. A map showing removed features is being developed.
- 4 The text in Section 2.4 was changed to reference Figure 6
- 5 Table 8 will be updated to reflect all waste data available

- Soil from the hot spot excavation was loaded into crates for disposal. If the data are available, the waste information in Table 8 will be better associated with field activities.
- 7 A new map is being developed that will show features removed and remaining
- 8 Figure 7 was modified so that locations with contamination greater than background or MDL are yellow and those less than background or MDL are gray
- 9 Comparison of results to proposed WRW and ecological ALs was added to Section 3
- 10 The in-process confirmation data is in Tables 5 and 6
- 11 An AL comparison is not included in the stewardship evaluation
- 12 Sample depth information was added to Table 9 All results are for surface soil except at one location Sample depth will be added to Figure 7 for the one subsurface location
- 13 The DQA Section is being revised in response to CDPHE comments

## IHSS Group 400-3 IASAP Addendum

- 1 "UBC" will be replaced with "buildings" in Section 1 2, page 2, third paragraph, fourth sentence and in Item 1
- The use of the 22-meter grid was approved by CDPHE Additional biased samples will be collected, as necessary Additionally, when in the building, the opportunity to collect additional samples offset from the original under building characterization effort will be considered, based on actual conditions
- 3 Tanks 4, 5, and 6 and OPWL leaks P-5-1 and P-5-2 will be distinguished on Figure 1
- 4 Only results that exceed background means plus two standard deviations or detection limits are shown on figures. Additionally, only data of "decision-making quality" are plotted. Other data are used as information in defining COCs. Soil outside of Building 444 and IHSS Group 400-3 will be characterized as part of IHSS Group 400-6. Text will be added that states that soil outside of Building 444 and IHSS Group 400-3 will be characterized as part of IHSS Group 400-6.
- In this case, it is believed that the tank shapes do not accurately represent the true locations of the tanks. The bias samples within the building were placed at the OPWL tanks relative to photographs and actual site visits prior to the preparation of the SAP Addendum. Table 3 will be updated to include sampling depth.
- 6 The samples for OPWL tanks were included in the UBC bias samples (found on Figure 5 and in Table 4) These specific samples can be identified in a table that presents the bias sample rationale Table 3 will be updated to provide more detail

- 7 Figure 2 will be changed to provide the correct AL for di-n-butylphate
- 8 VOCs are in Table 2 for this IHSS. There are no drains in this area.
- 9 Analyses of soil for pH have not proven instructive at other sites There are no ALs for pH However, VOCs will be added to the PCOC for IHSS 136 The depth that will be sampled will be 0.5' to 2.5'
- 10 RFETS staff is presenting as much information as is known. Statistical sampling will be the most effective sampling strategy for finding contamination at IHSS 136.2 RFETS staff will try to determine the exact location and depth of the pond.
- 11 PCOCs for OPWL leaks are radionuclides and metals VOCs will be added at these locations
- 12 As stated in the addendum, proposed sampling locations are the starting point for characterization. Additional samples will be taken as needed. VOCs will be added if field instrumentation indicates that VOCs are present.
- 13 Laboratory methods in Table 3 will be reviewed and corrected
- 14 Two additional samples will be added west of the boundary of 400-116 2
- 15 The concrete dock is so thick, it is hard to core through and likewise, hard for contamination to migrate through RFETS staff has been unable to locate "the pit" or any signs of its existence Building personnel have been consulted as well as others. The surface of the dock was sampled during the RLCR and results indicated no presence of contamination. The area of the reported spills was cleaned after the spill. There are UBC samples in this location.
- 16 Soil surrounding UBC 444 will be sampled as part of IHSS Group 400-6
- 17 OPWL will be sampled in accordance with the proposed RFCA modification All other OPWL areas of interest are in the building, therefore, they appear in the UBC samples Table 3 will be updated to clarify
- 18 Additional detail will be added to Table 3 to provide a sampling rationale
- 19 These items are included where available Existing drawings are not always accurate Many of these features are identified during building walkdowns. These features will be identified in Table 3.

## IHSS Group 500-2 IASAP Addendum

1 The text will be changed to say that existing data "may be used"

- 2 Building 551 is not a UBC and not part of IHSS Group 500-2 Additional text will be added to justify why samples will not be collected under the building
- 3 The dock area is shown on the figures and will be identified. A biased sample will be added in the dock area.
- 4 The rail line runs along the western side of the building There are several samples located along the rail line The rail line will be added to the maps
- 5 Sampling locations CA41-034 and BZ42-003 are very close to the northern end of Building 551 To our knowledge, a dock has not existed on the north side of the building
- 6 The approximate outline of the detention pond will be drawn in on the maps

## IV Meetings

The next meeting is scheduled for Thursday, May 29, 2003 from 10 30 AM to 12 00 PM

### Distribution

S Gunderson, CDPHE

D Kruchek, CDPHE

E Pottorff, CDPHE

C Spreng, CDPHE

T Rehder, USEPA

G Kleeman, USEPA

N Castenada, RFFO

R DiSalvo, RFFO

R McCallister, RFFO

S Surovchak, RFFO

R Tyler, RFFO

L Brooks, K-H ESS

M Broussard, K-H RISS

L Butler, K-H RISS

R Davis, K-H RISS

C Deck, K-H Legal

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J Mead, K-H ESS

S Nesta, K-H RISS

L Norland, K-H RISS

K North, K-H ESS

A Primrose, K-H RISS

D Shelton, K-H

K Wiemelt, K-H RISS

K Griggs, K-H Team

G Kelly, K-H Team

S Luker, K-H Team

D Radtke, K-H Team

D Reeder, K-H Team

M Ruthven, K-H Team

S Serreze, K-H Team

T Spence, K-H Team

E Woodland, K-H Team

Administrative Record

ER Meeting Minutes

Date/Time·

March 7, 2003

Site Contact(s).

Nick Demos, Dave Strand

Phone:

303-966-4605, 303-966-6422

Regulatory Contact: Gary Kleeman, Carl Spreng, and Dave Kruchek

Phone:

303-312-6246, 303-692-3358, 303-692-3328

Agency(s):

EPA, CDPHE

Purpose of Contact: Discuss Boundary Relocation for IHSS 700-163 2 (Buried

Americium Concrete Slab North of Building 771)

### Discussion

Based upon information provided by a retired employee of Rocky Flats (Jack Weaver, 35 yrs), the primary investigation area for IHSS 700-163 2 (Buried Americium Concrete Slab) has been changed as agreed in meetings held with EPA and CDPHE on February 27, 2003 The Historical Release Report (HRR) originally located the IHSS in an area currently under trailer T771N (immediately East of Trailer T771A) Mr Weaver formerly worked within Building 771 Management and was present when the Americium Tank was removed as well as when the concrete slab was buried Specifically, he has described an area where a large hole (over eight feet in depth) was excavated immediately northeast of Trailer 771A and under the current North Patrol Road Based upon his recollection, 5 geoprobe boreholes have been placed immediately North of the 1992 HRR IHSS location Three additional geoprobe boreholes have been sampled adjacent to Trailer 771N in the originally specified location of the IHSS Ground Penetrating Radar has been scheduled for both areas in the event that geoprobing is unsuccessful If the attempts described above are not successful in locating the concrete slab, it was agreed that the above actions would constitute sufficient effort for proposing No Further Action of IHSS 700-163 2 in the 2003 HRR

### Distribution

S Gunderson, CDPHE Broussard, K-H RISS

C Spreng, CDPHE

D Mayo, K-H RISS

L Brooks, K-H ESS

E Pottorff, CDPHE C Deck, K-H Legal

G Kleeman, USEPA

D Kruchek, CDPHE

M

L Butler, K-H RISS T Rehder, USEPA

J Mead, K-H ESS

S Serreze, K-H Team Strand, K-H Team Administrative Record ER Meeting Minutes S Surovchak, RFFO N Demos, K-H Team N Castenada, RFFO R DiSalvo, RFFO L Kilpatrick, RFFO J Legare, RFFO D Shelton, K-H S Nesta, K-H RISS D L Norland, K-H RISS K North, K-H ESS A Primrose, K-H RISS Russ McCalister, RFFO

Date/Time:

May 1, 2003

Site Contact(s):

Lane Butler, Marla Broussard, Susan Serreze

Phone:

303-966-5345, 303-966-6007, 303-966-2677

Regulatory Contact: Carl Spreng, Elizabeth Pottorff, Dave Kruchek, Harlen Ainscough

Phone:

303-692-3300

Agency:

**CDPHE** 

Purpose of Contact: Consultative Process Meeting – Meeting Notes

Discussion

# May 1, 2003, Comment Resolution Meeting for the Soil Risk Screen

A meeting was held on May 1, 2003 to discuss several draft reports However, the soil risk screen discussion took all available time

#### I Attendees

CDPHE Harlen Ainscough, Dave Kruchek, Elizabeth Pottorff, Carl Spreng DOE Norma Castaneda, Rick DiSalvo, Russ McCallister, Reg Tyler K-H Marla Broussard, Lane Butler K-H Team Susan Serreze

#### II Report Status

CDPHE was asked when comments on the Characterization Data Summary Report for IHSSs 165 and 176 would be ready Carl Spreng stated that he would send comments soon

#### Ш Issues

The DQAs are being revised Three examples were handed out for review

2 The soil risk screen process was discussed in detail IHSS Group 600-2 was used as an example. The example IHSS Group 600-2 soil risk screen was revised with concurrence from all parties. The revised soil risk screen language follows.

"The Soil Risk Screen (SRS) follows the steps identified in Figure 3 in Attachment 5 of the RFCA Modification (DOE et al. 2003)

Screen 1 – Are the contaminant of concern (COC) concentrations below RFCA Table 3 WRW Soil Action Levels?

Yes, all COCs are below WRW ALs

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the surface water standard (SWS)?

Migration via erosion and groundwater are the two possible pathways whereby surface water could become contaminated by PAC 400-802 Both pathways are unlikely based on the low levels of soil contaminants and this IHSS Group being located in a flat-lying area not prone to landslides or erosion

Groundwater monitoring results from nearby well 85202 do not indicate concentrations of analytes above RFCA groundwater Tier I ALs Results from this well indicate that cis-1,2-dichloroethene, tetrachloroethene, vinyl chloride and trichloroethene are greater than RFCA Tier II groundwater ALs, but less than Tier I groundwater ALs as shown in the following Table

Analyte	Result ug/L	Tier I AL ug/L	Tier II AL ug/L
Cis-1,2-dichloroethene	160	7000	70
Tetrachloroethene	78	500	5
Vinyl chloride	16	200	2
Trichloroethene	35	500	5

The nearest surface water Point of Evaluation (POE), GS50, is located approximately 3,000 feet northeast and the nearest Point of Compliance (POC), SW027, is located approximately one mile east-southeast of IHSS Group 600-2 GS50 is designed to monitor water from the Solar Evaporation Ponds and Triangle areas Recent data from SW027, which monitors water from a large part of the IA, indicate that radionuclides are present in very small quantities at this monitoring station (total uranium 428) However the analytes in well 85202 groundwater were not reported at SW027

Further groundwater evaluation will be part of the groundwater plume remedial decision and future sitewide evaluation

Screen 5 – Are COC concentrations below Table 3 Action Levels for Ecological Receptors?

Yes, all COC concentrations are below the ALs for Ecological Receptors"

It was agreed that the other cloesout report soil risk screen formats would following this format and language

The need for a soil risk screen for surface soil was discussed. The following language, but not a soil risk screen, was agreed to "Contamination migration via erosion is the possible pathway whereby surface water could become contaminated by PAC 900-175. However, because PAC 900-175 is not located in an area prone to landslides or high erosion and the surface soil COCs are present in very small concentrations and are limited in their areal extent further soil removal is not necessary to protect surface water." K-H sent this language to CDPHE on May 2, 2003 for final concurrence.

It was agreed that at other IHSSs or IHSS groups where only surface soil was evaluated, the soil risk screen is not needed, but that this language along with the justification of why only surface soil was considered, will be added

# IV Meetings

The next meeting is scheduled for Thursday, May 15, 2003, from 10 30 AM to 12 00 PM

## Distribution

- H Ainscough, CDPHE
- S Gunderson, CDPHE
- D Kruchek, CDPHE
- E Pottorff, CDPHE
- C Spreng, CDPHE
- T Rehder, USEPA
- G Kleeman, USEPA
- N Castenada, RFFO
- R DıSalvo, RFFO
- R McCallister, RFFO
- S Surovchak, RFFO
- R Tyler, RFFO

- L Brooks, K-H ESS
- M Broussard, K-H RISS
- L Butler, K-H RISS
- R Davis, K-H RISS
- C Deck, K-H Legal
- D Mayo, K-H RISS
- J Mead, K-H ESS
- S Nesta, K-H RISS
- L Norland, K-H RISS
- K North, K-H ESS
- A Primrose, K-H RISS
- D Shelton, K-H
- K Wiemelt, K-H RISS

- K Griggs, K-H Team
- G Kelly, K-H Team
- S Luker, K-H Team
- D Radtke, K-H Team
- D Reeder, K-H Team
- M Ruthven, K-H Team
- S Serreze, K-H Team
- T Spence, K-H Team
- E Woodland, K-H Team
- Administrative Record
- ER Meeting Minutes

Date/Time·

March 7, 2003

Site Contact(s).

Nick Demos, Dave Strand

Phone.

303-966-4605, 303-966-6422

Regulatory Contact: Gary Kleeman, Carl Spreng, and Dave Kruchek

Phone:

303-312-6246, 303-692-3358, 303-692-3328

Agency(s):

EPA, CDPHE

Purpose of Contact: Discuss Boundary Relocation for IHSS 700-163 2 (Buried

Americium Concrete Slab North of Building 771)

## Discussion

Based upon information provided by a retired employee of Rocky Flats (Jack Weaver, 35 yrs), the primary investigation area for IHSS 700-163 2 (Buried Americium Concrete Slab) has been changed as agreed in meetings held with EPA and CDPHE on February 27, 2003 The Historical Release Report (HRR) originally located the IHSS in an area currently under trailer T771N (immediately East of Trailer T771A) Mr Weaver formerly worked within Building 771 Management and was present when the Americium Tank was removed as well as when the concrete slab was buried Specifically, he has described an area where a large hole (over eight feet in depth) was excavated immediately northeast of Trailer 771A and under the current North Patrol Road Based upon his recollection, 5 geoprobe boreholes have been placed immediately North of the 1992 HRR IHSS location Three additional geoprobe boreholes have been sampled adjacent to Trailer 771N in the originally specified location of the IHSS Ground Penetrating Radar has been scheduled for both areas in the event that geoprobing is unsuccessful If the attempts described above are not successful in locating the concrete slab, it was agreed that the above actions would constitute sufficient effort for proposing No Further Action of IHSS 700-163 2 in the 2003 HRR

## Distribution

S Gunderson, CDPHE L Brooks, K-H ESS D Kruchek, CDPHE M Broussard, K-H RISS E Pottorff, CDPHE L Butler, K-H RISS C Spreng, CDPHE C Deck, K-H Legal T Rehder, USEPA D Mayo, K-H RISS G Kleeman, USEPA J Mead, K-H ESS

S Serreze, K-H Team Strand, K-H Team Administrative Record ER Meeting Minutes S Surovchak, RFFO N Demos, K-H Team N Castenada, RFFO R DiSalvo, RFFO L Kilpatrick, RFFO J Legare, RFFO D Shelton, K-H S Nesta, K-H RISS D L Norland, K-H RISS K North, K-H ESS A Primrose, K-H RISS Russ McCalister, RFFO  $Appendix \ B-Project \ Photographs$ 

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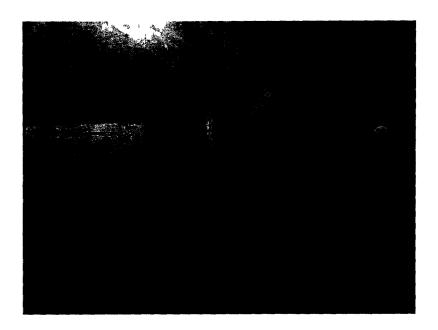


Figure 1 Coring outside building



Figure 2 Coring outside of buildings



Figure 3 Soil sampling

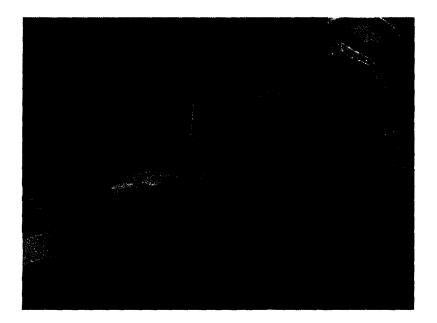


Figure 4 Soil Sampling



Figure 5 Tank removal

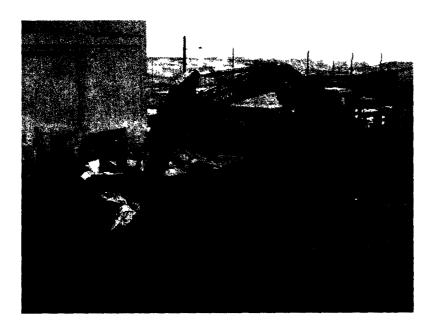


Figure 6 Soil excavation beneath tanks



Figure 7 Fiddler reading at soil excavation area beneath tanks



Figure 8 Fiddler reading at soil excavation area beneath tanks

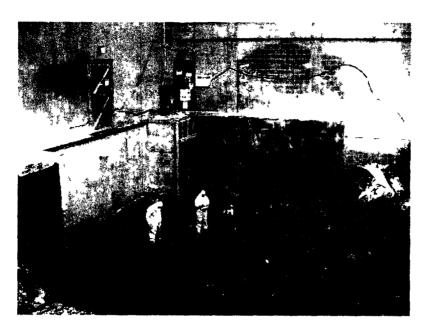


Figure 9 Soil excavation area at Tanks

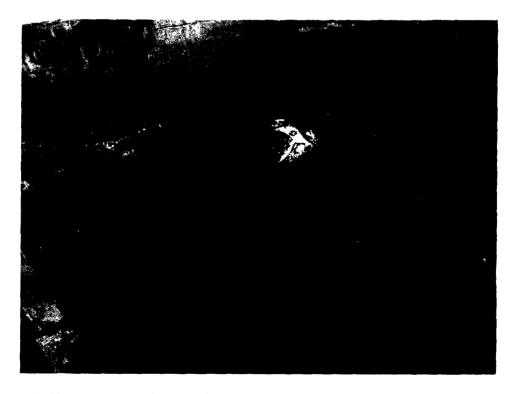


Figure 10 Cleaning remainder of soil excavation

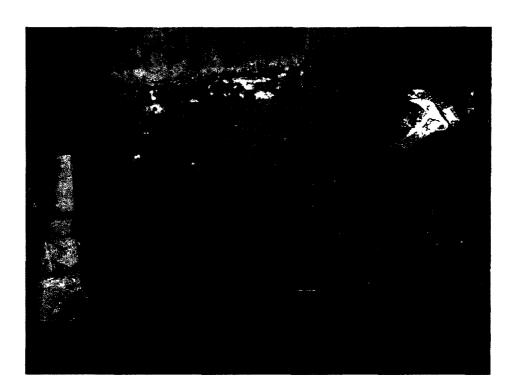


Figure 11 Cleaning remainder of soil excavation

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